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AEROJET-GENERAL SUPERFUND SITE

COMMUNITY MEETING

THURSDAY, DECEMBER 7, 2000

7:00 P.M.

MILLS MIDDLE SCHOOL
RANCHO CORDOVA, CALIFORNIA

REPORTED BY:

ESTHER F. WIATRE
CSR NO. 1564

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APPEARANCES

MODERATOR:

DON HODGE

PANEL:

CHARLES BERREY
STAN SMUCKER
ALEX MACDONALD
ED CARGILE
CRAIG FEGAN
ROSEMARY YOUNTS
MARC SILVA
ROY JENSEN
KARLA BRASAEMLE

AUDIENCE:

CHRISTOPHER BURKE
DAVE BURRIS
ADELE WYANOSKY
RICK STRATTON
ROBERT SMITH
CAMILLE VALENTI
ELLEN DOVE
MARLA ARNOLD
GERRY SWANICK
GEORGE WALGELL
STEVEN WILLIAMS
TOD KERSHAW
LARRY LADD
ROB ROSCOE
RENEE SHARP
SHELLEY DUTREAUX
GREG VOETSCH
ALVIN DUMONT
KATHLEEN BROWN
DARREL ECK
JANIS HEPLE
NORA KOSTLENIK
DON NOTTOLI
CHRIS CONNOLLY
SANDRA LUNTZFORD
ROB WHITE

2 DECEMBER 7, 2000, 7:00 P.M.

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4 MR. HODGE: Thank you all for coming tonight. It is
5 great to see all of you here. We are going to get started
6 as soon as the last people have a chance to sign in.

7 Can you all hear me now?

8 UNIDENTIFIED AUDIENCE MEMBER: Not very well.

9 MR. HODGE: Can everyone hear me now? Raise your hands
10 if you can't hear me.

11 Thanks again for coming. It is really great to see you
12 here. I am Don Hodge. I am the Community Involvement
13 Coordinator for U.S. EPA on the Aerojet site. I just have a
14 couple things to say right here at the outset before we get
15 into the heart of the program tonight.

16 I want to mention that through this door in the back
17 corner there and across the courtyard are the bathrooms, if
18 anyone is looking for them. And I think that door is open
19 so you can get back in.

20 We will have a Court Reporter here tonight taking down
21 the entire program verbatim. I want you to be aware of
22 that. This is a public hearing, and we want to have a
23 complete record of everything that is said. There are
24 sign-in sheets at the back. If you somehow got past me and
25 the sign-in sheets, if you wouldn't mind at some point

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1 during the night signing in. We, again, would like to have
2 a record of who is at these meetings and, also, so we make
3 sure our mailing list is up-to-date. We don't do any other

4 follow-up other than – you could be in line for future
5 mailings.

6 There are handouts in the back. If you didn't get
7 those on the way in, feel free to take whatever looks
8 interesting, and don't forget the cookies. I don't want to
9 take those home.

10 And then before we start, I would like to introduce the
11 panel here. Let me say a couple of things about the format
12 for tonight. After introductions Charles will talk a little
13 bit about the Superfund process and how we go about deciding
14 what to do about hazardous waste contamination. Then we
15 will start talking about – Charles will start talking about
16 Aerojet in particular and what we are planning to do or
17 proposing to do for the Western Groundwater operable unit.

18 Then we will take – and we would like to keep it to a
19 half hour. We don't necessarily need to do that. We will
20 take clarifying questions for half an hour or so. These are
21 questions about things from the presentation that you don't
22 understand. This is not the formal comment period. This is
23 just to make sure that we clear up any misunderstandings,
24 explain anything that leaves a question mark in your mind
25 before we get into the public comment period.

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1 During the comment period, we would rather not set a
2 time limit on comments. This is really your period to let
3 us know what you think. So we would only ask that you be
4 aware that there are other people that would like to speak

5 and try to keep your comments germane and on the subject
6 and allow other people time to speak also. We are prepared
7 to stay here as late as we can to listen to and take down
8 all of your comments. My understanding is we have to be out
9 of the building by 11:00. We can finish by then.

10 That is not enough time?

11 In that case, if we have to schedule another meeting,
12 we can do that.

13 Introductions: On the left side here, Craig Fegan
14 from Aerojet.

15 Rosemary Younts, also from Aerojet.

16 Stan Smucker is a toxicologist. Actually Dr. Smucker
17 from EPA.

18 Charles Berrey is the project manager for the site for
19 EPA.

20 Karla Brasaemle is a consultant to EPA on the site.

21 And Ed Cargile is from California Department of Toxic
22 Substances Control.

23 And Marc Silva is a consultant to Aerojet.

24 Alex MacDonald is from the Regional Water Quality
25 Control Board.

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1 And Roy Jensen is another EPA consultant and
2 groundwater modeler.

3 I will turn it over to Charles.

4 MR. BERREY: Some of you may already be familiar with
5 CERCLA, so bear with me. I have to go through this for the
6 people that are not familiar with the process.

7 Basically EPA has a process for doing remediation at
8 sites, and the process consists of discovery, preliminary
9 assessment investigation, site listing on the National
10 Priority List. That is NPL as in the NPL. Then there is a
11 remedial investigation for a site specific area.

12 What we have here at Aerojet is a large site. So in
13 our case where we've already completed discovery,
14 preliminary assessment and site listing on the NPL, we are
15 at our first operable unit for remedial investigation, but
16 there will be more. So this part of the process, from here
17 to here, will be repeated for each operable unit.

18 Right now we are doing it for Western Groundwater, and
19 we are at the public meeting stage and getting public
20 comments from this meeting and through written comments
21 through the end of the public comment period which goes
22 through the end of January.

23 After the results of the public comment period, if we
24 don't have to make any adjustments in the proposed plan,
25 then we go to a Record of Decision, known as a ROD. After

1 the ROD there will be fact sheets issued to the community,
2 at least on a yearly basis, to keep you abreast of what is
3 happening, and we will have additional meetings if
4 necessary. Then we go into a remedial design where you
5 design a remedy. And remedial action is where you are
6 implementing the remedy. And then you go to operation and
7 maintenance, which is just continuing to operate, just like

8 pump and treat, where you are actually remediating until you
9 reach your objectives. And then you get to delisting, which
10 then takes you off the NPL.

11 Like I said, for a site this complex where you have
12 more than one ROD for an operable unit, this process will be
13 repeated and you will have another public meeting and go
14 through this operation for each operable unit.

15 Today we are here to talk about the Western
16 Groundwater. What I would like to do now is just give you a
17 general orientation for some of you who haven't got the fact
18 sheets or are not familiar with what is happening at Aerojet
19 for the Western Groundwater.

20 The Aerojet site is 8,500 acres. It is bounded on the
21 east by Prairie City Road, on the north by Highway 50, on
22 the west by Folsom South Canal, and then on the south by
23 White Rock Road. The study area we are talking about
24 tonight, Western Groundwater, is indicated by this dotted
25 line in red. It is approximately 15 square miles, five of

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1 which is on Aerojet property and ten square miles off
2 Aerojet property.

3 I have depicted here in blue the size of — the maximum
4 extent of the plume that we are facing from Western
5 Groundwater.

6 UNIDENTIFIED AUDIENCE MEMBER: Clarification. Why are
7 all of the contaminated wells not included in that area of
8 discovery?

9 MR. BERREY: What we are doing now, there are various

10 other actions that are occurring at this site through the
11 Water Board down here in the Rancho Cordova test site and
12 the American River up here.

13 UNIDENTIFIED AUDIENCE MEMBER: That blue line goes
14 closer over to the American River, et cetera, where wells
15 are out to here. You have been missing the homes over
16 there.

17 MR. BERREY: This particular operable unit will take
18 care of this area here. The intention is that we will do a
19 perimeter groundwater OU which will take care of the rest of
20 Aerojet perimeter as a separate operable unit. Right now we
21 are going after this part of the plume right here because of
22 the loss of 13 wells that we have from the water purveyors.

23 UNIDENTIFIED AUDIENCE MEMBER: You don't have the 13
24 wells shown in that area of discovery.

25 MR. BERREY: They are shown in the RI/FS. These three

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1 documents that you see up here, they are available at
2 Sacramento State. They define the extent of the
3 contamination in Western Groundwater, and they have the
4 water purveyor wells listed on the document.

5 UNIDENTIFIED AUDIENCE MEMBER: They are listed, but it
6 is not - I mean, over there it shows an area of shading of
7 where all the contamination's at, but you don't have it
8 including where all the contaminated wells are at. You are
9 giving a false conclusion that it hasn't spread as far as it
10 has.

11 UNIDENTIFIED AUDIENCE MEMBER: Two years ago we had
12 this same doggone meeting. You pulled the same doggone
13 stuff you are pulling now.

14 MR. BERREY: All I can say is that we are going to go
15 after the contamination that is outside the zone as a
16 separate operable unit, and right now -

17 UNIDENTIFIED AUDIENCE MEMBER: That is what you said
18 two years ago.

19 UNIDENTIFIED AUDIENCE MEMBER: Is that beyond the 240
20 years that you've indicated in the newspaper?

21 MR. BERREY: That is correct. That is a separate
22 issue. It depends on that particular operable unit when you
23 determine, when you do the RI/FS for that work, how long the
24 remedy will take. Isn't necessarily going to take that long
25 determining on what you find in the contamination, depends

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1 on that study that is done for that area. I can only
2 address what we know from the study that's been done for
3 Western Groundwater.

4 UNIDENTIFIED AUDIENCE MEMBER: Yeah. But you said that
5 plume is going to a certain place and you are going to stop
6 it somewhere else, and it's already passed that area.

7 MR. BERREY: Well, let me see if I can address any more
8 of your comments in the rest of the presentation that I
9 give. If I don't, then please give me some written
10 comments, and we will address them.

11 UNIDENTIFIED AUDIENCE MEMBER: Your scope of what you
12 do, you said that discovery has already been there, and I am

13 saying the charts is – that you discovered it farther, that
14 you didn't include it in the warning areas and cleanup, and
15 you have cleanup on the other side. So you are not giving
16 us straight facts.

17 MR. BERREY: I appreciate the comment. Please give it
18 to us in writing. It will help. If you have some specifics
19 on –

20 UNIDENTIFIED AUDIENCE MEMBER: It is not just a
21 comment, sir. I agree with the people here. And I am the
22 chairperson for the Concerned Citizens of the Rancho Cordova
23 Water System, and we need to know the truth. Your
24 credibility is – we doubt it. We appreciate you getting
25 the meeting together. We appreciate you giving us

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1 information. We don't appreciate being lied to. We don't
2 want to snow anything over. We want to know the facts. We
3 have a problem with our water, and these people here are
4 concerned, and I am concerned. And it has already gone to a
5 full-blown proportion that we have a problem. And we don't
6 want it sugar-coated.

7 UNIDENTIFIED AUDIENCE MEMBER: You are not cleaning up
8 the dirt either. There is nothing about cleaning up the
9 dirt there.

10 UNIDENTIFIED AUDIENCE MEMBER: I promise you nobody is
11 going to wait 240 years for it to be cleaned up.

12 UNIDENTIFIED AUDIENCE MEMBER: It's going to take 240
13 years to go through the paperwork.

14 MR. HODGE: I am getting the impression that you guys
15 would rather not listen to this presentation.

16 UNIDENTIFIED AUDIENCE MEMBER: I heard it before.

17 UNIDENTIFIED AUDIENCE MEMBER: Change that format.

18 THE COURT REPORTER: I can't take everyone talking;
19 it's impossible.

20 MR. HODGE: Some people want to hear the presentation.
21 Some people want to speak. Can we make an agreement that
22 we will get through the presentation as quickly as we can
23 and leave as much time for you guys to speak as possible?

24 UNIDENTIFIED AUDIENCE MEMBER: Providing that it's
25 factual.

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1 UNIDENTIFIED AUDIENCE MEMBER: You guys for 30 minutes
2 and give everybody else the rest of the time.

3 UNIDENTIFIED AUDIENCE MEMBER: The idea that you guys
4 can go on interminably is unacceptable.

5 MR. HODGE: We were only going to speak for 30 minutes.
6 Is that okay, can we take 30 minutes?

7 UNIDENTIFIED AUDIENCE MEMBER: Never been at a meeting
8 where EPA's spoke for only 30 minutes.

9 UNIDENTIFIED AUDIENCE MEMBER: You brought in all your
10 own people to say what you wanted everybody to hear, and why
11 watch the facts. All the boards up there show where the
12 wells, little squares that have already been shut down, but
13 in nowhere is it in the scope of cleaning and everything to
14 the right of it is where you want to catch it before it goes
15 anywhere.

16 What kind of presentation is that when you've got the
17 wells closed down and shaded out? That's wrong. Who are
18 you trying to pull the wool over?

19 UNIDENTIFIED AUDIENCE MEMBER: It's already exceeded
20 beyond the scope of that number that they are showing there.
21 I know 'cause I did the testing. I worked for Aerojet for
22 13 years.

23 UNIDENTIFIED AUDIENCE MEMBER: They are not giving us
24 the straight up here on that, are they?

25 UNIDENTIFIED AUDIENCE MEMBER: No, they are not.

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1 UNIDENTIFIED AUDIENCE MEMBER: I heard it back in '76.

2 UNIDENTIFIED AUDIENCE MEMBER: Lots of us here have not
3 heard the presentation.

4 MR. HODGE: I was just trying to see if we can actually
5 put the wells on the overhead here. I am not sure we can do
6 that while we are conducting the meeting. Also, I have been
7 asked to remind everyone we can only get a verbatim
8 transcript of the hearing if we have one person talking at a
9 time.

10 I don't, I do not want to cut off any comments. It is
11 not our purpose here. I'd just like to take one comment at
12 a time. I'm willing to let people comment up front if you
13 think there are things that need to be said before we begin.
14 There are people who would like to hear the presentation.
15 If that's all right, I promise you we will not take the
16 whole night for our presentation.

17 MR. BERREY: The plume indicated in blue here on the
18 map is approximately nine square miles. It is in Layer C.
19 It is the largest area of contamination we have in this
20 particular aquifer. There are two other aquifers below
21 this. I should say layers that are affected, which are
22 Layers D and E. Layer D is approximately 4.6 square miles,
23 about 9 percent – 30 percent of the plume. And Layer E is
24 about one square mile, and it's approximately 9 percent of
25 the plume.

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1 Right now the plume you are looking at here is Layer C
2 and it represents nine square miles or 60 percent of the
3 overall plume.

4 In this particular area, study area, we have 15
5 contaminants, but the primary contaminants are perchlorate,
6 N-nitrosodimethylamine and TCE. This remedy will be driven
7 by the cleanup for perchlorate and the cleanup for
8 N-nitrosodimethylamine. Those two contaminants, because of
9 the cleanup levels which I will go into, will control the
10 cleanup of this plume.

11 EPA's cleanup range for perchlorate is 4 to 18 parts
12 per billion based on the studies done to date. Currently
13 there are existing studies that have been in process for the
14 last two and a half years, and we are expecting that
15 something is going to come out by the end of June of next
16 year. But right now what I have picked for the proposed
17 cleanup level is the lowest part of the EPA range, which is
18 four parts per billion perchlorate. The reason for that is

19 when we analyze the level of contaminants and we look at the
20 four and the 40 ppb lines, they are basically very close to
21 each other. So the first 30 years of remedy cost, there is
22 no difference in the cost and, therefore, we've picked the
23 lower part of the range for this particular site.

24 In the case of N-nitrosodimethylamine we have picked
25 the PRG, which is the preliminary remediation goal, which is

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1 EPA's one at ten to the minus six, which is one in a million
2 cancer risk is at its low end of our range again.

3 In the case of NDMA that is at the lower end of the
4 detection capability. People right now will assure you that
5 they can measure NDMA at 20 parts per trillion. When you
6 get below that level there is a controversy whether you can
7 actually attain accurate readings. Some laboratories say
8 they have the capability of two parts per trillion, and we
9 intend to review that and determine if we can get down that
10 low.

11 But anyway, as far as the remedy goes, what is being
12 recommended for the cleanup level for perchlorate is four
13 parts per billion, and for NDMA it is 1.3 parts per
14 trillion. When we evaluate a remedy, we go through, EPA
15 goes through nine criteria. The first two criteria are
16 known as threshold criteria, every remedy must meet these
17 criteria to go beyond.

18 The first two threshold criteria are overall
19 protectiveness of human health and the environment. The

20 compliance with that proposal is an appropriate requirement.
21 These are other statutes, state regulations that are
22 applicable.

23 Of the ten alternatives that were proposed, seven
24 passed the first two threshold criteria. We then went down
25 and looked at the balancing criteria, which consist of

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1 long-term effectiveness and permanence, reduction of
2 toxicity and mobility, and volumes through treatment,
3 short-term effectiveness, implementability and cost. They
4 are known as the modifying criteria.

5 UNIDENTIFIED AUDIENCE MEMBER: Are those equally
6 considered?

7 MR. BERREY: Yes. When we come down to the modifying
8 criteria, there is the state comment and the public. And we
9 have had input from the state and accepting the
10 recommendations of either alternative 4B or 4C, and we are
11 now in the process of getting community comments on the
12 alternatives.

13 What I would like to do now is take a few minutes to go
14 through two alternatives, Alternative 4B and Alternate 4C.
15 These are the two alternatives that just use extraction
16 versus reinjection. When we looked at the aquifers that we
17 are dealing with and the contamination that we had, we felt
18 that extraction gave us better control. So consequently of
19 the remedies that were proposed 4B and 4C are the only two
20 that use extraction only, when we are talking about the only
21 two with no injection.

22 The difference between 4C and 4B is what I would like
23 to go into now to just give you an understanding because
24 there is a preference in the case of Aerojet preferring 4B
25 and the agency, EPA, prefers 4C based on available

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1 information.

2 What you have in the line that you see here, the solid
3 line, is the extent of the C aquifer contamination. The
4 light cross-hatching in here is the extent of the
5 contamination in the D aquifer, or I should say layer, and
6 over here the darker cross-hatching or shaded area is the
7 contamination in the E. Remember, E is only 9 percent of
8 the contamination; the layer is approximately 30 percent and
9 the C layer is 60 percent. In both the B and C alternatives
10 the on-property portion of the remedy is the same. It
11 consists of installation of total 13 wells, nine to replace
12 the reinjection fields and up to four to augment E and F.

13 The intent of this modification of the on-property
14 system is to control the contamination on property and not
15 let any more get off. The difference between 4B and 4C on
16 the off-property portion is exactly five wells. There are
17 five more wells in Alternate 4C. In 4B, as you are seeing
18 right here, the wells are installed off property at the
19 maximum extent of the Layer C to control the total plume.
20 What we did was use a particle tracking model to analyze how
21 long we felt it was going to take to do the model. That
22 model, then, indicated that it would take us 340 years to

23 cleanup using alternative 4BD. So when we were doing the
24 RI/FS we looked at if we could speed that up, which led us
25 to Alternate 4C.

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1 The difference in 4C is these wells that you see closer
2 to Aerojet property in the plume, and what they do is aid in
3 remediating both D and E layer, expedite that remediation,
4 and we estimate they could reduce the time by at least a
5 hundred years.

6 So, basically, what the remedy consists of is the
7 on-property portion to control the plume so nothing gets off
8 and the off-property portion which contains the plume and
9 remediation occurs between these two extraction systems.
10 This little plume that you see down here is covered under a
11 separate order from the Water Board under the IRCTS. The
12 overall cost difference between these two remedies is
13 approximately \$15,000,000. The total cost estimated, based
14 on 30 years and net present worth, for Alternate 4C is
15 \$110,000,000. Alternate 4B is approximately \$95,000,000,
16 using rounded numbers.

17 EPA's preference for Alternate 4C is based on the fact
18 that we will clean up aquifers D and E, I should say Layers
19 D and E, faster, and we have an overall projected cleanup
20 time of approximately a hundred years less, which is about
21 32 percent. The overall estimated cost is higher by 16
22 percent. We believe this remedy provides the best overall
23 protection for the public because it controls the
24 contamination and then remediates between those two

25 extraction well systems.

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1 At this point, I would like to ask people to give
2 questions. The reason we have people up here in the panel
3 is there is a lot of expertise for what is needed to request
4 to answer your questions. So, depending on what you have,
5 we will try to get you the best answer we can.

6 UNIDENTIFIED AUDIENCE MEMBER: Who thought up this
7 mess? You told us the same thing two years ago, that you
8 were going to pump it out, and then they can't do - that
9 did no good. Now we are back here again and you're telling
10 us you want to pump it. Again, you are not taking the
11 contaminants in the ground. You are wasting money, time and
12 power. This is some first-year engineering student idea.

13 MR. BERREY: The remedy, I think, you are referring to
14 two years ago was the American River, which is the north
15 side of Aerojet.

16 UNIDENTIFIED AUDIENCE MEMBER: No. You were supposed
17 to do some pumping and purifying the water. There you was
18 going to pump it back into the ground. You still haven't
19 taken care of the ground that - you are not going to do it
20 this way. It is not - none of us here is going to benefit
21 from this. The only one that is going to benefit from this
22 is Aerojet.

23 MR. BERREY: I don't think they are going to benefit by
24 spending this amount of money.

25 UNIDENTIFIED AUDIENCE MEMBER: Well, they are going to

1 keep putting it in the ground.

2 MR. BERREY: There is no reinjection recommended in
3 this remedy; it only has extraction.

4 MR. HODGE: Just a couple of procedural things, first
5 of all. One, again, I need to remind you that only one
6 person at a time can speak for the transcript of the
7 meetings. If you could please ask your questions in turn,
8 that would help a lot.

9 Secondly, if we can, can I just get a show of hands
10 from people who have questions about the presentation just
11 now, things they did not understand, that are not in the
12 nature of their comments?

13 What we would like to ask is that even for those
14 clarifying questions, if you can come up to the mike to ask
15 a question, that would help. And secondly, for the comment
16 period, if you did not get a chance to fill out one of the
17 comment cards at the back table, if you can do that now so I
18 can keep track of who has spoken and who hasn't, to make
19 sure everyone gets a chance to speak, I would appreciate
20 that.

21 Who needs a comment card for the longer comment
22 period?

23 Anyone else want to?

24 I saw some people who wanted to ask questions. Why
25 don't we start at the back.

1 If you can please say your name when you come up to the
2 mike. Hold off for one minute while I turn on the mike.

3 MR. BURKE: My name is Christopher Burke. I am an
4 environmental planner and groundwater geologist, 25 years'
5 experience.

6 I'm very disappointed by the documents that have been
7 printed with my taxpayers' money and distributed here for
8 obvious reasons, which I think will become plain by a series
9 of questions I have on your presentation.

10 First of all, has the plume crossed the American River?

11 MR. BERREY: It is not part of this study, but, yes,
12 it has crossed the American River.

13 MR. BURKE: It has crossed the American River?

14 MR. BERREY: That is correct, but that is a different
15 plume and a different OU.

16 MR. BURKE: Second question is: Why is
17 trichloroethylene, a well-known -

18 UNIDENTIFIED AUDIENCE MEMBER: Suspected human
19 carcinogen.

20 MR. BURKE: - human carcinogen -

21 UNIDENTIFIED AUDIENCE MEMBER: Suspected, but it
22 is.

23 MR. BURKE: Why is TCE neglected as the driver for the
24 cleanup?

25 MR. BERREY: On the western side of Aerojet TCE was

1 treated and, therefore, the contamination was removed when
2 the systems were installed in '86. So there is very little
3 contamination with TCE that's gotten around the system.

4 MS. YOUNTS: Can I clarify that?

5 MR. BURKE: Please, it is an important question.

6 MS. YOUNTS: Aerojet installed back in the mid '80s
7 six treatment facilities that have been effective in
8 treating VOCs, specifically TCE, since then. This plume
9 primarily deals with the issue of perchlorate and NDMA in
10 the groundwater.

11 And I also want to clarify very quickly the comment I
12 heard in the back about ground contamination. Aerojet has
13 done an extensive and complete investigation of its
14 facilities. The issue is really the groundwater
15 issue. There is some ground contamination on-site at
16 Aerojet, but it is not that significant and certainly will
17 be cleaned up within the Superfund process.

18 MR. BURKE: You know and I know that trichloroethylene
19 has a unique property of bonding to the interstitial
20 porosity of sedimentary rocks, and groundwater is a highly
21 fluctuating, dynamic system, and to simplify things as you
22 have in this diagram here, which almost any elementary
23 geologist would be appalled by this graph that you have of
24 the cross-section of the stratigraphy in this area is
25 absurd, and I am appalled that you would depict and the

1 engineers here on this panel would simplify the geologic

2 conditions of the site with all these question marks I note
3 is virtually meaningless.

4 MR. HODGE: I take the responsibility for that graph.
5 I am not a geologist.

6 MR. BURKE: Maybe you should get geologists to do your
7 charts.

8 MR. HODGE: In the RI/FS report they have the real
9 chart. I was producing that fact sheet for a more general
10 audience and not for scientists, specifically. I asked them
11 to simplify that chart for that purpose.

12 MR. BURKE: It is my understanding that until the site
13 is clean to EPA threshold standards, that is projected by
14 the computer models, to 340 years that the site cannot be
15 delisted as a Superfund site?

16 MR. BERREY: Until remedial objectives are met, the
17 site can't be delisted; that's correct.

18 MR. BURKE: That for 240 years it is going to be a
19 Superfund site?

20 MR. BERREY: If it would take that long. But as you
21 know, in the last 200 years your life's changed
22 significantly. We are expecting that there will be
23 improvements in technology. But today I had to estimate
24 based on what I know today.

25 MR. BURKE: Let's get together in 200 years and see how

1 much has changed.

2 Can you give me any indication of trichloroethylene
3 sites that have been effectively remediated completely?

4 MR. BERREY: I will be glad to send you a letter giving
5 you a list of sites. But there have been sites that have
6 been remediated.

7 MR. BURKE: I would like you to know one of those sites
8 where there is still ongoing cleanup and trichloroethylene
9 is heavily contaminated, a place on the East Coast called
10 Aberdeen Proving Grounds. In that case the Army is spending
11 \$100,000,000 a year, 100,000,000 a year, not in 30 years,
12 one year, 100,000,000 a year to cleanup trichloroethylene.

13 I would expect a similar scale effort on the part of
14 Aerojet. It is appalling to me - I am going to tell you
15 something, this will not stand, the 240-year time frame.
16 There are many more different advantages to increasing the
17 numbers of wells and doing other kinds of technologies. I
18 don't believe, and I am sure it runs in the millions of
19 dollars that Aerojet has spent for its consultants to do
20 this kind of work. I just don't believe that they've been
21 paid for this job.

22 I'd just like one more question. On the balancing
23 criteria you indicated that cost was equal to all the
24 others. So that means that if a particular strategy or a
25 particular cleanup scenario is analogous in other ways, if

1 it cost more it could well have been rejected; is that
2 correct?

3 MR. BERREY: It is one of the nine criteria.

4 MR. BURKE: In other words, the answer is yes?

5 MR. BERREY: Cost alone is not the driver.

6 MR. BURKE: It so happens you picked the cheapest
7 alternative. It so happens you picked an alternative that
8 is, in my view, way out of the ballpark for the cost of
9 this cleanup, and it so happens that Aerojet is still
10 maintaining profitability. I just have one question for
11 Aerojet.

12 What was their revenues last year?

13 MS. YOUNTS: Aerojet is a company here in Sacramento
14 that has revenues of about \$245,000,000. Let me just add a
15 little background to that.

16 Over the last 15 years or so of this environmental
17 process, the expenditures for environmental evaluation and
18 investigation and remediation have come to in excess of
19 \$150,000,000.

20 MR. BURKE: Over —

21 MS. YOUNTS: Over the last 20 years. It has been
22 stipulated —

23 MR. BURKE: Like I said, the U.S. Army is spending a
24 hundred million dollars at one site for each year just for
25 trichloroethylene.

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1 MR. BERREY: One point of clarification I would like
2 to make is this shows the extent of the TCE portion and
3 basically it is like the horns of a bull. It is the part
4 that's leaked around —

5 The overall plume is this big. TCE has got this far
6 because the fact that it leaked around the extraction

7 system. It is not the driver for this remedy.

8 MR. HODGE: Is the distinction between clarifying
9 questions and comments clear at all? Is it that we just
10 want to roll this into one long comment session?

11 You have a question you want to ask? Other people have
12 clarifying questions before we go into comments? Is that
13 what you —

14 UNIDENTIFIED AUDIENCE MEMBER: I have a question.

15 MR. HODGE: Let's try to take questions for a few more
16 minutes before we move to the comment period.

17 MR. BURRIS: My name is Dave Burris.

18 On the map there it shows a bunch of clay layers and
19 silt, et cetera, and the C layer which is supposed to be
20 most contaminated approximately 200 feet below the ground.
21 What is the possibility of the stuff coming up through these
22 layers to the ground surface?

23 MR. JENSEN: What is the possibility of contamination
24 from the C layer coming to the surface? Under natural
25 conditions or under the remedy?

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1 UNIDENTIFIED AUDIENCE MEMBER: Both. Any conditions.

2 MR. JENSEN: I don't think that is very likely. For
3 instance, because the water table is so deep. So it has to
4 be a point for water to discharge to the surface, and I
5 don't think there is a point of discharge that I am aware of
6 at the site for groundwater. So I don't think that
7 contaminated groundwater will discharge to the surface under

8 natural conditions from the C aquifer.

9 MR. CARGILE: It is important in the picture that all
10 of these layers are dipping down in towards the west. The
11 valley gets deeper and all of these layers go deeper with
12 distance. Right here in the area we're talking about, the C
13 layer is 200 feet, there are intervening layers of clay and
14 that clay or silt and keeps water from moving up and down.
15 As much as it wants to move downgradient, gravity is the
16 driving force. It wants to move down so it is moving away
17 from us right now.

18 MR. BURRIS: Continuation of the question. All the
19 stuff went down underneath that clay and there is no - none
20 of the stuff stayed above the clay?

21 MR. CARGILE: There is some.

22 MR. BURRIS: On top of the clay yet under the surface.

23 MR. HODGE: Did everyone hear the questions and the
24 answers?

25 MR. BURRIS: Let me ask the question again. The

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1 question was: Did everything go down underneath the clay,
2 go to the left on this graph, or did some of it come on top
3 of the clay where the Aerojet arrow is and seep along the
4 top of the clay and then possibly come up to the ground
5 surface? Has that occurred?

6 MR. SILVA: I think most of the results that we are
7 dealing with in this area are caused by the injection wells.
8 So the water was reinjected to the C layer about 200 feet
9 below the ground surface where it started from. So, at that

10 location of the reinjection wells there were no contaminants
11 up above the A and B layers which contained clean water.

12 MR. BURRIS: I just don't want this to turn into
13 another Love Canal problem.

14 MS. WYANOSKY: Hi, my name is Adele Wyanosky.

15 What I was concerned about is extraction, what are you
16 doing with extraction? You are not going to dump it
17 somewhere else? That is one of the things that was never
18 clarified.

19 MR. BERREY: You let me end part of the presentation, I
20 sort of truncated it, and we wanted to get to the comments.

21 MR. HODGE: Good question.

22 MR. BERREY: Let me just start, basically, for the
23 extraction system there are 7,000 gallons per minute that is
24 being removed by the extraction system. That water is
25 brought to the surface and treated at a treatment plant.

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1 The treatment plant will consist of three systems: a
2 biological treatment system to remove perchlorate, a UV
3 system to remove the NDMA and then residual VOCs will be
4 removed by air stripping. That water then – you would have
5 the alternative of either direct or indirect reuse.

6 But going direct reuse, that water then would be
7 discharged under NPDES permit to a tributary, for example
8 Buffalo Creek, then take it to the American River. At that
9 point it could be extracted out of the American River or out
10 of Folsom South Canal to go to a surface water treatment

11 plant to be used in a water purveyor's system. That's
12 implementable today under Department of Health Services'
13 regulations.

14 Under direct reuse, that water would come after
15 treatment exactly as I specified for the three contaminants
16 and the remaining VOCs. It would then be put in a water
17 purveyor's system for reuse. That currently is not
18 implementable because the Department of Health Services
19 hasn't approved a treatment system yet, and there is an
20 application down in Southern California for a similar system
21 which is pending. But right now that alternative isn't
22 implementable. The other alternative is to reinject the
23 water into the aquifer.

24 MS. YOUNTS: I would like to add just one comment
25 because you still have a look of concern on your face. I

1 want to explain that the treatment technology that EPA is
2 discussing tonight is technically sound. The remedy and the
3 treatment that is being used will stop the plume and it will
4 also give us, provide us clean, safe water.

5 We have had a new technology biotreatment plant, pilot
6 plant, operating at our site for the past two years. All of
7 the data and the water that we see coming from that is pure
8 of any - clean of any chemicals. That is the treatment
9 facility included in the remedy being discussed tonight.

10 I have made this offer to several and many people have
11 already been there, but you are more than welcome to contact
12 me later and take a tour of the facility, if you would

13 like.

14 UNIDENTIFIED AUDIENCE MEMBER: Rosemary, I appreciate
15 that, but it's too little too late.

16 MR. STRATTON: My name is Rick Stratton.

17 My question is, our water rates have been going up. Is
18 there any provision for us being reimbursed for that? We
19 understand they have to shut down wells and use more
20 expensive water.

21 MR. BERREY: It is not part of this program.

22 Basically, what we are doing is water that would come out of
23 the 7,000 gpm would be something that is available for the
24 water purveyors to use. That water wouldn't then have to be
25 repumped out of the ground. It's already been pumped out.

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1 But there isn't any provision for replacing or augmenting
2 your cost for water rights.

3 MR. SMITH: My name is Robert Smith.

4 I have a question for you people. I worked in the
5 construction field for Bechtel Corporation for 19 years.
6 You're talking about pumping this water out and everything.
7 What's going to happen if a farmer gets in and starts
8 pumping water on his land?

9 You're bringing it to the surface. You guys are
10 bringing it to the surface when you are taking it and
11 dumping it into the creek. You're still bringing it up
12 there. I can't see where you are going to accomplish
13 anything.

14 What are you going to do to Aerojet, stopping them
15 from putting more contaminants in the ground?

16 MS. VALENTI: My name is Camille Valenti.

17 My question may be fairly elementary. I was just a
18 little confused about your reinjection process. You said
19 that you chose 4C and 4B that did not have reinjection.
20 What were the plans that didn't do reinjection? Is it
21 drawing it up and reinjecting it back into the area of
22 contamination? Is that what the reinjection was?

23 MR. BERREY: In the different alternatives all of the A
24 alternatives have some reinjection component. And in
25 addition, in the five series, the 5B and 5A alternatives

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1 have reinjection, but it is off the property.

2 Reinjection ideally has two components. One is to act
3 as a wall to prevent contaminants from passing through and
4 if you are lucky you would also move water, if you can force
5 it to move to another location, toward your extraction
6 wells. We don't have that luxury. At best what we would
7 be able to do is act as a wall.

8 In the alternatives that were proposed the reinjection
9 component was to act as a wall. That minimized the number
10 of extraction wells that were having to be used. Our
11 preference was for extracting because we felt that we had
12 better control with extraction than we had with the wall
13 through these complex aquifers.

14 MS. VALENTI: My other question was for Rosemary. What
15 type of water treatment are you using currently at Aerojet

16 with your solvent, and what happens to your water that you
17 use now?

18 MS. YOUNTS: The water that we use in our operations
19 now is certainly not going into the ground. It is contained
20 and it is cleaned.

21 UNIDENTIFIED AUDIENCE MEMBER: It is what?

22 MS. YOUNTS: The moment that contamination was detected
23 back in 1979 we no longer put anything into the ground that
24 would contaminate the ground.

25 UNIDENTIFIED AUDIENCE MEMBER: That is not the truth.

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1 MS. YOUNTS: Perchlorate was discovered in 1997. At
2 that point we stopped injecting and reinjecting the
3 perchlorate into the ground. I think it is important to
4 remember that no one until 1997 even had the technology to
5 detect perchlorate at such low levels. And certainly no one
6 at that point had the technology to remove perchlorate from
7 the water.

8 We now have the technology that detects perchlorate,
9 number one, to very low levels. We have developed the
10 technology that removes perchlorate. It removes NDMA. It
11 is at work on the facility. Additionally, it removes
12 nitrates which is a growing concern in California and
13 provides water after treatment to water that is at nondetect
14 levels and clean, safe with no levels of any chemicals. I
15 mean, I think that is - this is a major step in our overall
16 process. And this is what will be implemented as part of

17 this remedy.

18 MS. VALENTI: One last question. About how long is it
19 going to take until these extraction wells are installed?

20 MR. BERREY: Depends on the remedy that you are looking
21 at. The remedy 4C puts the extraction well systems in the
22 beginning of the remedy. Alternate 4B puts wells in at
23 various times. The last wells installed in 2041.

24 First wells in the ROD gets done this year would be
25 April. We would be able to start at least doing the design

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1 and hopefully within a year we would start putting the wells
2 in.

3 MS. DOVE: Hi. My name is Ellen Dove. I have four
4 questions. Two are pretty quick, I think.

5 When the wells in either of these formats are done, is
6 the cleanup level over the time or is it something that
7 cleans up more in the beginning and less at the end? Which
8 is it?

9 You are nodding yes, sir, but I don't know what that
10 means.

11 DR. SMUCKER: I am listening.

12 MR. JENSEN: I would expect that more material mass
13 contamination would be removed during the initial
14 operations.

15 MS. DOVE: You would expect?

16 MR. JENSEN: I would expect.

17 MS. DOVE: Have you done some models?

18 MR. BERREY: What we did was we took the models and

19 what we did is we had 1,400 particles and released them in
20 the model to find out how long it was going to take. The
21 difficulty is, the reason this remedy is so long, is that
22 the last 10 to 12 percent take a long time to clean up.
23 It's hard to get those last few particles out. That is why
24 the remedy is so long. The bulk of this stuff comes out
25 toward the front. It isn't going to happen in the first

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1 five to ten years.

2 MS. YOUNTS: I think it is also important to add that
3 the EPA I believe is fulfilling its commitment here to clean
4 the contamination that we are dealing with. The remedy
5 stops the plume in its track and begins to provide safe,
6 clean water.

7 MS. DOVE: I don't know who is the soil expert. Do you
8 have Merton formation, soil, around this area, too?

9 Now you answered that the plume has crossed the
10 American River. Is that being monitored? And is that being
11 measured? And if so, by whom and what are the results?

12 MR. BERREY: The American River is a separate remedy.
13 That has been implemented through the Regional Water Quality
14 Control Board. They issued an order to Aerojet and '98 the
15 system was up and running. And that report comes out every
16 six months on that, and basically it shows that we've got
17 containment of that plume and that the wells that we were
18 trying to protect downgradient to the north are being
19 protected.

20 And actually, if I've missed anything, Alex, this is
21 yours. Do you want to add anything?

22 MR. MACDONALD: That system has been operating
23 successfully for two years now. It definitely shows primary
24 containment on the north side of the river. We are actually
25 evaluating another layer that is deeper, that isn't as

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1 extensive, on whether we should attack that plume now or
2 whether just the system can contain it.

3 So that system is ongoing and continuing evaluation
4 until they at least have containment of that plume. It is
5 at least 90 percent contained.

6 MS. DOVE: Considering it crossed the river, is anybody
7 measuring that which is picked up by the river?

8 MR. MACDONALD: This plume goes underneath the river,
9 a good 80 to a hundred feet below the river. It is not -
10 there is no discharge of the plume into the river at this
11 time.

12 UNIDENTIFIED AUDIENCE MEMBER: Does that ever change?

13 MR. MACDONALD: Earlier on, actually if you look back
14 in the early 1970s - excuse me, 1980s, there were measured
15 concentrations of TCE in seeps going into the river through
16 the perched water level table. Those seeps no longer
17 occur. And that plume is now well below the river.

18 UNIDENTIFIED AUDIENCE MEMBER: In the rainy season
19 couldn't you get a perching effect again?

20 MR. MACDONALD: Aerojet is required to monitor that
21 river. We have never ever detected TCE in the river itself.

22 MS. DOVE: Those reports are public record?

23 MR. MACDONALD: All our reports are public record,
24 correct.

25 MS. DOVE: My last question is, I have heard some

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1 discussion about municipalities such as Rancho Cordova,
2 which is not actually incorporated, but the city of Folsom
3 which is, that they're indirected [verbatim] in annexing
4 this property and having some future control. My question
5 is: The ownership of Aerojet, what is to protect the public
6 in the future, in this 200 years, from Aerojet deciding to
7 close out their cleanup and leave it to the greater
8 community? That is a two-parter. And the other question
9 is: What is to protect us, that is the citizens, from
10 Aerojet selling off some of their land that they've claimed
11 to have cleaned up for future development?

12 MS. YOUNTS: Let's address that. First of all, I think
13 one of the reasons I wanted to be here and I had requested
14 that EPA put me on this panel, is to make sure that you know
15 we are committed to this process. We are committed legally,
16 but we are committed as a company, and we do not intend to
17 walk away from the problem. And I think the fact that we
18 have worked on this problem for 20 years and are committed
19 to continue it and get it resolved and get it behind us, it
20 is a positive thing.

21 Environmental stewardship and getting through this
22 process, getting this remedy implemented, cleaning the

23 groundwater, providing safe, clean water is our priority. I
24 have read – I have read my name and I have read stories
25 also about incorporation plans and about annexation plans.

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1 Yes, we have talked to Folsom about annexation, just as we
2 have talked to Rancho Cordova and just as we have talked to
3 Sacramento County.

4 I think we would like the opportunity to keep the
5 discussions open with all of our communities to make sure
6 that whatever the future holds for this region, it is done
7 in the right way. We are not in any formal process at this
8 point to be annexed. We do have portions of our property
9 that we are working to carve out of this Superfund site. We
10 believe that these are portions of the property that never
11 should have been included in the Superfund site. They are
12 portions of property that have never been operated on, that
13 have only served as buffer zone. We have gone through
14 numerous technical studies and reports. We have agency
15 agreement that these particular portions of property are
16 clean and free of contamination.

17 UNIDENTIFIED AUDIENCE MEMBER: There will be
18 delisting?

19 MS. YOUNTS: It's not delisting.

20 MR. BERREY: The term wouldn't be delisting.

21 MS. YOUNTS: It is not delisting. We obviously –

22 UNIDENTIFIED AUDIENCE MEMBER: You have a site and you
23 take part of it and say it is no longer a Superfund site,
24 please explain to me why that is not delisting that ground.

1 would be delisted from the Superfund site, absolutely, and
2 they should be. They do not have contamination.

3 UNIDENTIFIED AUDIENCE MEMBER: Have to make some money.

4 MS. YOUNTS: When the Superfund process came in, they
5 should not have been included in that process. We are
6 working through that with the agencies. Long term we are
7 committed to this area and environmental stewardship. And
8 this process, completing it, is a priority. Also a priority
9 we want to have a leading role in shaping and working with
10 our communities, this portion of the region.

11 MS. DOVE: I don't know what you meant by "agencies."

12 MS. YOUNTS: All of the regulatory authorities in
13 California and federal U.S. EPA.

14 MS. DOVE: You didn't mean municipalities?

15 MS. YOUNTS: No.

16 MS. DOVE: You didn't exactly answer, but perhaps I
17 can read between the lines. Is there a current plan at
18 Aerojet if you can decertify or take these particular lands
19 out and pronounce them now clean to sell those lands or turn
20 them over in some fashion for development?

21 MS. YOUNTS: We do not intend to sell off portions of
22 our land. That is not what we envision. We envision having
23 a very active role, working with our communities to benefit
24 this region and to benefit our communities.

25 Potentially, long-term development is a strategy. We

1 would like to partner with our communities and with the
2 region and the State of California to make sure that is done
3 in the right way.

4 MS. DOVE: Thank you.

5 MR. BERREY: Point of clarification on that is that the
6 agencies would have deed restrictions on that property for
7 the access to groundwater to protect the public.

8 MS. ARNOLD: My name is Marla Arnold.

9 I came to the meeting back in '76, bought a home in
10 '69, and was too quiet at the time and nervous and shy to
11 speak up. And I took it for granted that you people were
12 educated, that EPA and Aerojet and et cetera. And I took
13 you at your word. And you told me and - I just had a high
14 school education. Since then I picked up a little college.
15 Not enough to boast about. Common sense me told back then
16 when you said you were going to clean it and reinject it to
17 the first layer of groundwater that I thought, well, there
18 is more than one layer. What is going to happen to the
19 layers underneath that it feeds off to?

20 But I didn't speak up. I thought you were going to
21 clean it and take care of the problem. Well, here we are.
22 Okay. In your - to get on to what you were doing, the
23 scope of your problem.

24 First I would like clarification. How much acreage is
25 Aerojet? How large is Aerojet?

1 MS. YOUNTS: Aerojet is about 20 square miles or 13,000
2 acres.

3 MS. ARNOLD: There was no size mentioned of how big the
4 treatment plants were going to be. To me you're talking
5 about a treatment plant it could be a ten-foot area open
6 that you are cleaning. Why don't you take 10,000 of it and
7 make a water purification plant out of it and clean it? How
8 many years would you cut off of the 240 if you made a super
9 large facility?

10 MS. YOUNTS: We do have a very large facility that is
11 treating the water on plant. It has the capacity to double
12 in size.

13 I would invite you to come out and see it.

14 MS. ARNOLD: Since I listened in to your last one, I
15 think we were told Arden-Cordova only had maybe three wells
16 down, which are now up to seven. Apparently something is
17 not working fast enough or good enough. Your facility is
18 too small.

19 Also, if you do not clean up the dirt first, you are
20 not going to clean - how are you going to solve the
21 problem? You've already got a problem down in the water,
22 but it is continually going down, and you say, "Oh, we will
23 do it when we are required to do it by the EPA or whatever
24 gets the fund. Why aren't you doing it immediately or,
25 better yet, why haven't you done it?"

1 MS. YOUNTS: We have been working with six groundwater
2 treatment and extraction facilities on VOCs and removal of
3 VOCs. I am not sure I can speak to the dirt.

4 MS. ARNOLD: Isn't it coming from the dirt?

5 MS. YOUNTS: It is in the groundwater.

6 MS. ARNOLD: Where did the groundwater get it from, the
7 dirt?

8 MS. YOUNTS: Let me get someone who can answer your
9 question.

10 MR. SWANICK: My name is Gerry Swanick. I work for
11 Aerojet.

12 You asked about the process. The process we have done
13 is when contamination was first found is moving in the water
14 away from the source of it. So the goal was to put wells in
15 to catch that water and stabilize that and then go back to
16 the soil.

17 So we've done that. We are in the process of
18 investigating, figure out where the chemicals are, where
19 they're moving from.

20 MS. ARNOLD: Isn't it spread out over the dirt and that
21 heavy rains stepped it all down into our different pools
22 that you missed out and the injection helps spread it
23 farther?

24 MR. SWANICK: Actually, not quite that -

25 MS. ARNOLD: Pretty close for a layman.

1 MR. SWANICK: We stabilize the site so that they are

2 not contaminating any new materials. What we have done is
3 while we are controlling with the pump and treat system, new
4 chemicals, one of them in particular perchlorate, we treated
5 all this water and left the perchlorate in the water with
6 the understanding that it was not toxic and it wasn't a
7 concern. That was reinjected into the ground.

8 So now we have a plume that we are trying to collect by
9 putting wells in the front end of that and stop it in its
10 tracks. Pull the water out, treat it and then put it to
11 reuse, either go back into the river or for other uses.

12 MS. ARNOLD: But you are only doing the top layer. You
13 are not worried about the bottom layers and you are not
14 getting ahead of the other layers. I heard this one before
15 since '73.

16 MR. SWANICK: We are pumping. The wells that you show
17 in the remedial design are at different depths, all at
18 different layers in the water. When Charles talked about
19 the different operable units, one of those operable units is
20 to go into all of the soils and stabilize those.

21 EPA's goal in their efforts has been to - most
22 important thing is to protect the human exposure issue.
23 That is drinking water. That is the aquifer. They want to
24 stop that. They want to move inland. Once that is stopped,
25 they move inland and try and control and clean up the other

1 issues.

2 Is that clarifying?

3 MS. ARNOLD: Sort of.

4 You said the human interest, and I noticed in the
5 brochure you were only concerned about cancer. Now water
6 contributes to other things like your arteries and bringing
7 nourishment to different parts of your body and your brain
8 waves and et cetera. I haven't heard anything. I just
9 heard cancer.

10 What about the other issues? Maybe I am a little dingy
11 from drinking your water all these years. I am definitely
12 preaging faster than I should be.

13 MS. YOUNTS: Let me take a stab at least at the first
14 part of that. The water we are drinking is safe. When
15 perchlorate -

16 MS. ARNOLD: That is why people are dying around me.

17 MS. YOUNTS: - and other chemicals have been detected
18 in wells, those wells have been shut down. We are working
19 to replace the water that has been lost. Scientific data
20 does not support there is. At this point there are numerous
21 studies by experts, medical and scientist, as well as the
22 Department of Health Services and EPA, to determine what, if
23 any, are the effects that perchlorate has.

24 MS. ARNOLD: Are they looking at different things?
25 They haven't been looking in the past.

1 MS. YOUNTS: At all potential impacts, they are
2 reviewing the data. They expect to issue their findings
3 this spring.

4 MS. ARNOLD: You guys never did answer me about a

5 gigantic larger water purification plant, one that does not
6 have to be dumped in the river to go like Bob Smith said, to
7 get into our agriculture, first to eat and et cetera. Why
8 don't you instead – and there has been in the newspaper
9 about your wanting to sell off land to homes. Why don't you
10 treat all your dirt and build a gigantic water treatment
11 plant? You owe it to us.

12 So far you have spent all this money gathering data and
13 paying people for research, and you really haven't done that
14 much for us, because if you have it wouldn't be in my area
15 and you haven't included in the map the well that is
16 contaminated in my area. You say I am outside of it even
17 though all the things, you know.

18 MS. YOUNTS: The remedy that we are talking about
19 tonight is a pilot plant that we have, which is pretty
20 massive in size operating in our facilities, it has been
21 operating for two years, is currently treating 4,000 gallons
22 of water per minute. It is –

23 MS. ARNOLD: It's obviously not enough to take – or
24 you wouldn't be taking 240 years to clean everything up.

25 Thank you.

1 MS. YOUNTS: The 240-year question is something that we
2 are also assessing. We believe it is almost impossible –

3 MS. ARNOLD: How about within 15 years? Why don't you
4 make that the goal?

5 MS. YOUNTS: We believe it is impossible to estimate
6 how long. We can see 15 to 20 years out. And we are

7 working on trying to get an analysis of the total time
8 involved that we believe it will take.

9 MR. HODGE: Can you hear me? I just want to get a
10 feeling for how many more questions we have before we go
11 into the formal comment period.

12 UNIDENTIFIED AUDIENCE MEMBER: Count on 11:00 p.m.,
13 man.

14 MR. HODGE: I am here to 11; that's fine. I don't
15 mind. I just want to make sure that, first of all, everyone
16 who wants to comment formally has a comment card filled out,
17 and if there are any that I haven't, you can send them up.
18 And secondly, if we can try to keep the questions as short
19 as possible so that people have time to do their comments.
20 I'm sure everyone would appreciate that.

21 MR. WALGELL: My name is George Walgell. I am a
22 farmer. I lived in the same house on Eagles Nest Road for
23 74 years. I am part of the scenery around here.

24 Aerojet injected water in dry wells when they were
25 building rockets. How many sites did they have on Aerojet

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1 property where they dug these dry wells as you see behind
2 you?

3 MR. FEGAN: If I can try to clarify. What do you mean
4 by dry well?

5 MR. WALGELL: Look in back of you.

6 MR. FEGAN: Those were - I think when they were doing
7 the manufacturing out of Aerojet common practice at that

8 time was to dispose of water and TCE out to unlined ponds.
9 Those are what you're referring to as dry wells are the
10 source of the groundwater contamination.

11 MR. WALGELL: How many of these dry wells, similar
12 installations, were on Aerojet property or dug underneath
13 your property?

14 MR. FEGAN: I don't know the exact number, but there
15 are people we can get this number from. But during the
16 investigation Aerojet was asked to delineate contamination
17 in approximately 300 source areas that included ponds of
18 this type.

19 MR. WALGELL: There are 300 source areas where they
20 pooled TCE or put it down in the aquifer. This site here,
21 they injected it into the ground as you see on the right.
22 That did not carry it, so they built a 60 by 60 by 5 foot
23 high reservoir. When that did not carry it, then they put
24 it out in the reservoir and let it evaporate or go into the
25 ground that way. This is on Douglas Road near Grant Line

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1 where the big tall white building is.

2 They want to build 22,000 houses right across the fence
3 from this installation. How many gallons of TCE did Aerojet
4 use in manufacturing its rockets over that period and
5 injecting into the ground? This should be known.

6 MR. FEGAN: It is known, but I don't know that number.

7 UNIDENTIFIED AUDIENCE MEMBER: I could tell you. My
8 neighbor is a retired Aerojet person. He tells me it was at
9 times 88 barrels a day.

10 MS. YOUNTS: We can get the appropriate number for you
11 and get back to you with that answer.

12 Let me comment on one thing and that is, yes, we do
13 have contamination, and it is a result of the operations
14 that we had on our facilities. We have been in the region
15 for 50 years and building defense systems for the country
16 for that long.

17 The practices at that time and procedures that we were
18 required to follow, procedures and practices that were
19 approved by all the regulatory agencies as being the right
20 procedures and practices and procedures that met the
21 standards at that time we followed. We were never cited for
22 doing something wrong.

23 Technology has changed. We now know that what we did
24 back then was not the appropriate thing to do. We no
25 longer contaminate, and we are working to clean that

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1 contamination up. We are committed to completing the -

2 MR. WALGELL: If you know how many gallons of stuff
3 you put it and you know when you are cleaning it, you know
4 how many gallons you take out with your stripping system,
5 and that should be known so you get an idea of what
6 percentage of the stuff you are picking up, because TCE is
7 heavier than water. It's a dense nonaqueous phased liquid.
8 It doesn't go - the direction of the aquifer flow is toward
9 Elk Grove, towards the conant depression in Elk Grove.

10 If the geology happens to be going north towards the

11 river, the TCE would go towards the river. It would not
12 flow in the direction with the aquifer because it is heavier
13 than water. It goes by gravity. So if your clay layers go
14 towards the river, that is where your TCE is going to go.
15 Your aquifer may be going south, but that is irrelevant.

16 MS. YOUNTS: What I will do if you give me your name
17 and your number, I will find out specifically, if I can and
18 if at all possible, how much was used.

19 I will tell you, though, that we have worked to
20 investigate and have thoroughly completed the investigation
21 of the site. Part of that process involved digging over a
22 thousand monitoring wells and taking over a million samples
23 of water. And we believe that we have fully characterized
24 that site.

25 We know what is there and we know where it is and

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1 today, particularly with this remedy that we are discussing,
2 we have the technology to treat it, to remove it from the
3 water and provide safe drinking water. And we are
4 committed to doing that.

5 MR. WALGELL: I sort of gather from the stuff I read,
6 and I deal with Kiefer Landfill because we border on Kiefer,
7 so I am a little familiar with pollution, that major
8 pollution. I am sort of thinking that Aerojet is not going
9 to succeed in cleaning this stuff up because what I read is
10 if you stop your extraction well system the TCE level in the
11 water comes up. It stays down as long as you pump. So,
12 basically, we are going to be pumping forever.

13 MS. YOUNTS: Let me tell you this, we will be pumping
14 for many, many years. How many, we cannot estimate.
15 Aerojet can't estimate. But we will not stop pumping until
16 the water, the groundwater is clean and we can restore water
17 that we have lost.

18 MR. WALGELL: In the meantime you are taking all this
19 water. It's undrinkable. Nobody wants to use it. It's
20 going down the American River. And you are pumping water
21 out of the aquifer. The aquifer is going down a foot and a
22 half a year. We're planning to build all these houses
23 around here, and where is the water going to come from?

24 MS. YOUNTS: We are certainly not going to build houses
25 until we have adequate water supplies. I will tell you

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1 there are several alternatives for water. But I want to
2 also reiterate that the technology that is being implemented
3 as part of this remedy, it is brand-new technology. It is
4 advanced technology. It has just been developed. It is one
5 of a kind. It is not being used in the United States.

6 MR. WALGELL: I don't believe in advanced technology.
7 It was advanced technology that built this blooming dry
8 well.

9 MS. YOUNTS: I would invite you to come out and take a
10 look at it.

11 MR. WALGELL: Would you invite me onto Aerojet
12 property? I can go on Aerojet property?

13 MS. YOUNTS: Absolutely. I invite anyone in this room

14 to come out and take a look at what we have done and take a
15 look at the results of the water we are treating. It is
16 being treated through new technology to nondetect levels of
17 any chemicals, and that is part of or the key part of this
18 whole remedy tonight. We can remove the perchlorate. That
19 is not possible – it's never been possible before. And we
20 can now clean the water and provide safe, clean water.

21 MR. WALGELL: There is another item here.

22 UNIDENTIFIED AUDIENCE MEMBER: While he is doing that,
23 I want you to know that there was straight dumping, no
24 filters, since 1985, up to 1985, massive.

25 UNIDENTIFIED AUDIENCE MEMBER: That is wrong.

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1 UNIDENTIFIED AUDIENCE MEMBER: That is flat wrong.

2 MR. CARGILE: Excuse me, dumping of what?

3 UNIDENTIFIED AUDIENCE MEMBER: You have no filters.
4 You had no filters.

5 MR. CARGILE: On the treated water?

6 UNIDENTIFIED AUDIENCE MEMBER: You did not do anything
7 to our water but pollute it in 1985. 1985, you've been
8 doing that.

9 MR. CARGILE: I am trying to understand what the
10 filters that weren't there were on. Were they on the
11 treatment?

12 UNIDENTIFIED AUDIENCE MEMBER: Any kind of treatment of
13 the water, just not dumping all of the pollution right into
14 the ground. There was no precautionary measure whatsoever
15 that you took for any of us. You didn't even have a liner;

16 you had nothing. You filtered nothing.

17 And you have dumped it straight into the ground, which
18 is the reason that we are having the problem. We own
19 property here. What are we going to do with the property
20 when nobody wants to pay and buy our homes because they
21 can't drink the water? Who is going to compensate us for
22 that?

23 People, we need to get together in one voice. I hear
24 all of you and I know that you are here because you are
25 concerned. We need to bind together. Individually we will

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1 hear exactly what we are hearing. It is not sufficient for
2 me. I won't live 240 years. I'll bet none of you in this
3 room is going to live 240 years. This is a bunch of
4 bull.

5 I don't have the degrees sitting behind them. I am not
6 attacking you people individually. I appreciate the efforts
7 that you have made. I am just saying that it is not enough
8 for Rancho Cordova. I would like to ask you right now to
9 join with me and some of the other people who are concerned
10 about Rancho Cordova.

11 I have asked Don to give me a copy of the information
12 and your names, your telephone numbers, what you signed back
13 there. He refuses to do so unless you give me permission.
14 If one person stands up and says no, I can't get it. But
15 you can sign a paper for me again, if you would, if you
16 don't want me to have it. I am the chairperson for the

17 Concerned Committee in Rancho Cordova for this lousy water,
18 and we need to bind together. When you go to sell your
19 property, when you have babies, they can't drink the
20 water. They just can't. It is worse in some areas than it
21 is in the others.

22 MR. HODGE: I want to thank you for the comments. This
23 is exactly what we need to hear tonight. But I am a little
24 torn because I do want allow people to ask the questions
25 that we were trying to set this time aside for. I do want

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1 to clarify or not actually clarify, I want to admit that I
2 did say that because of Privacy Act considerations I can
3 release the sign-in sheet. We are bound by the Privacy Act
4 cannot to release that unless under some - in some
5 situations where we can get unanimous consent of everyone in
6 the room, we can release it.

7 But I would suggest that we do just go ahead and
8 collect the separate sign-in sheet for this other group,
9 which I wasn't aware of until tonight, or we would have made
10 provisions for that. I would be happy to help pass around
11 another sign-in sheet.

12 What was the name of the -

13 UNIDENTIFIED AUDIENCE MEMBER: I can go ahead and lay
14 one back there. I am getting cards of all of the people
15 that they will sign it again. This red book, if you will
16 sign when you go out the door and leave me your telephone
17 number and your address and your name. We have people that
18 are going to keep you informed, people that are going to

19 keep you informed. We paid out of our pockets to have wells
20 tested in our area so we know exactly, and they are lying to
21 us.

22 MR. HODGE: I want to mention one other thing, too.
23 Now that I am hearing that this group is forming, EPA is
24 willing to fund a technical advisor that is independent of
25 EPA. So if you form a group in the community and you want

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1 some help understanding the documents that EPA puts out, we
2 are willing to help. There are some standards that have to
3 be met. We can provide grant money to facilitate that
4 process of understanding EAP's documents and publications.
5 I just want to make that point.

6 If anyone does have a group that is interested in that,
7 please give me a call or send me an E-mail. My name and
8 contact information is on the proposed plan itself and on
9 the summary version that is back there on the table.

10 UNIDENTIFIED AUDIENCE MEMBER: Don, I appreciate
11 that. I want to get the people involved. We are Rancho
12 Cordova. We are the owners. It is our land and our home.
13 It is our businesses. We want to stay independent. We want
14 to keep it independent.

15 MR. HODGE: I am offering some funding. We have had a
16 long time. Nothing is happening.

17 Can we move on to the last -

18 MR. WALGELL: This is Aerojet up here. Here is Douglas
19 rocket plant is right here, and that is the picture I showed

20 where you had the dry wells. The green area is 22,000
21 proposed houses that are going to go in. The purple area is
22 Kiefer Landfill. Number three is Mather Field where they
23 also put TCE in the ground. Number four is a major dump.
24 What is in there I don't know. That is on Eagles Nest Road.
25 And number five is - what is number five? The rendering

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1 plant. And number six is the Gerber dump. The little block
2 spots right here are nine deep wells on our ranch. We have
3 2,700 acres in this area here.

4 And what is going on out in our area is Aerojet wants
5 to build housing on some of its land. It has a contract
6 with Folsom for, I don't how many million gallons a day or
7 whatever. But it does have a contract with Folsom, and it
8 wants to use surface water to use that on its housing.

9 And in the meantime a few wells that have gone out of
10 circulation in the four - in the area of number four, sort
11 of. And what is going on is they want to come down to our
12 country, they want to come down to here, and they want to
13 put in three wells, pump 6,000 gallons a minute, and pump it
14 up Excelsior Road to Mather and clean it there, and then
15 supply water to CostCo, the Sunrise corridor and Citizens
16 Utility apparently who lost a well.

17 My question is: Why doesn't Aerojet, if it is a good
18 neighbor, give the 6,000,000 gallons a day it has,
19 contracted surface water, clean water, to those, replace
20 those two wells that it has polluted? And this needs to be
21 done rather than coming down to the number six area and

22 pumping water out of our aquifer. The people down there
23 don't like it.

24 MS. YOUNTS: Let me try to address that. The treatment
25 remedy we are discussing tonight has to do with the seven

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1 wells that have been closed as a result of contamination
2 coming from the Aerojet plant.

3 Are you referring here to the north vineyard situation?

4 MR. WALGELL: No, no. What they are going to do is
5 they are going to the north vineyard situation and put
6 wells, deep wells, pump the water out, pump it up to Mather
7 to clean it, and then provide water for the Sunrise
8 corridor and the urban water district or something that lost
9 two wells recently. This is the county's proposal. They
10 want to come get water from us to replace two wells that
11 were polluted by you. And my theory is that Aerojet with
12 its contracted water from Folsom, surface water, should
13 provide that water to replace those wells. Don't come into
14 our area and suck water out of our aquifer. Our aquifer is
15 going down a foot and a half a year.

16 MS. YOUNTS: We don't - I don't believe we have plans
17 to suck water from your aquifer. We are looking at -

18 MR. WALGELL: That is going through the county. I go
19 to meetings on it. I have been to two, three meetings on
20 it.

21 MS. YOUNTS: We are looking at ways to provide
22 alternative water supplies. Whether that is through a

23 surface water treatment facility, whether it's through use
24 of water that has been treated with this technology and this
25 remedy -

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1 MR. WALGELL: Nobody seems to want it. I wouldn't
2 bathe in it. I certainly wouldn't bathe my child in it.

3 MS. YOUNTS: The issue is now being addressed by the
4 Department of Health Services to determine if it should be
5 approved as a permitted use. It is not a permitted use
6 yet. We believe that it's capable of being approved and
7 permitted. It is clean to nondetect level of any chemical.
8 It is safe water.

9 We also believe that it could help to begin to resolve
10 some of the water issues that this region has.

11 MR. WALGELL: You let us - while you build housing and
12 give them nice fresh surface water, you tell us to drink
13 your polluted water, and you also steal water from our
14 aquifer.

15 MS. YOUNTS: The water we drink is safe. We are no
16 longer polluting water. We are in the process of trying to
17 clean up water that we polluted in previous years.

18 MR. WALGELL: You would drink the water you discharge?

19 MS. YOUNTS: The water that has been treated with our
20 perchlorate system, yes, I would drink the water. The water
21 is cleaner than water we extract and treat from the river or
22 from the canal.

23 MR. WALGELL: Thank you.

24 UNIDENTIFIED AUDIENCE MEMBER: Aerojet doesn't drink

25 the water out of the plant, does it? The water on your

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1 property is imported from Folsom.

2 MS. YOUNTS: We are serviced by Folsom.

3 UNIDENTIFIED AUDIENCE MEMBER: You said you would drink
4 it, but nobody, in fact, does drink it.

5 MS. YOUNTS: It is not approved for drinking purposes,
6 sir.

7 MR. WILLIAMS: My name is Steven Williams.

8 I worked for Aerojet as an associate chemist,
9 laboratory specialist in the analytical chemistry department
10 for 13 years, from 1974 through 1987.

11 First of all, I would like to ask: Rosemary, were you
12 around when Cordova Chemical Company was in operation?

13 MS. YOUNTS: I started with Aerojet in 1983.

14 MS. WILLIAMS: Is that yes or no?

15 MS. YOUNTS: I am not sure. I believe it's no. I
16 believe the plant closed shortly before that. But I am not
17 - I am not for certain.

18 MR. WILLIAMS: We see that Aerojet does have a company
19 that was in existence and now is not in existence, and they
20 caused a good portion of some of this pollution nightmare
21 that we have on our hands. And they are not even in the
22 picture.

23 MS. YOUNTS: We are absolutely responsible for Cordova
24 Chemical.

25 MR. WILLIAMS: That is -

1 MS. YOUNTS: For that operation. We have not disposed
2 of that and forgotten about it. It is part of this
3 process.

4 MR. WILLIAMS: That means that the law has not changed
5 about you owning a chemical until it is nontoxic?

6 MS. YOUNTS: I am not sure I understand your
7 question.

8 MR. WILLIAMS: If you manufacture a chemical, you own
9 that chemical until it is nontoxic no matter where it goes
10 in the world.

11 MS. YOUNTS: We are responsible for the operations on
12 the land and for contamination caused on the plant that may
13 impact public health. We are responsible for that as a
14 Superfund, and we also believe it is our commitment and
15 responsibility.

16 MR. WILLIAMS: But the law hasn't changed?

17 MS. YOUNTS: Not that I am aware of.

18 MR. WILLIAMS: So the law is still on the side of us
19 who are concerned about our health, for ourselves and our
20 children. I want to ask first to EPA: Are you aware of any
21 other chemicals that Aerojet has manufactured and has on
22 their site in this pollution that is not shown in this
23 equation, and that are toxic and/or carcinogenic and other
24 problems? One of the reasons is that they don't happen to
25 appear on EPA's toxics list.

1 MR. BERREY: What we have done is have Aerojet run
2 analyses with the open spread, in other words, the maximum
3 being able to check like 8260, where they look for a
4 multiple contaminate, a full range. And we have come up
5 with identified compounds. That is how NDMA got on the list
6 and other chemicals that have been reviewed.

7 And what that does is if there is a technology that we
8 have for a testing method, we have done a review for it.
9 But if there is a chemical where there isn't a test, for
10 example, that doesn't exist because there is nothing in the
11 testing laboratories, there is no method, we can't run those
12 tests because there isn't anything out there. We run
13 everything we now have.

14 I can't answer your question to say every possible
15 chemical has been tested for. We have tested for everything
16 that is within the testing parameters.

17 MR. WILLIAMS: You've tested for everything that
18 Aerojet manufactured?

19 MR. BERREY: That was one of the analyses that was done
20 as part of the remedial investigation.

21 MR. CARGILE: Everything that was testible. If there
22 is a test for it, we looked for it. If there is not a test,
23 we can't look for it.

24 UNIDENTIFIED AUDIENCE MEMBER: What percent of the
25 chemicals is that?

1 MS. YOUNTS: Are you talking about the chemicals we use
2 or the chemicals of concern?

3 UNIDENTIFIED AUDIENCE MEMBER: The fact of the matter
4 is that less than one percent of the chemicals in our
5 society can be tested and described. You are saying you
6 tested everything that could be tested for. The fact is
7 that is probably less than ten percent or five percent of
8 the chemicals you used.

9 MR. CARGILE: What would we do, sir? We are looking,
10 we are doing -

11 MR. WILLIAMS: You can develop tests for those specific
12 chemicals. I know -

13 MS. YOUNTS: That is exactly what we did with
14 perchlorate and NDMA. That is what happened, the technology
15 to detect those was discovered, came about a couple of years
16 ago.

17 MR. WILLIAMS: You did not have to do that. All you
18 had to do was go out on a sunny day and watch the ground
19 bloom with ammonium perchlorate crystals.

20 UNIDENTIFIED AUDIENCE MEMBER: You know, cigarettes
21 aren't cancer either. Cigarettes don't cause cancer.

22 MR. WILLIAMS: In all due respect, Aerojet did have
23 containment wells. However, these containment wells were
24 made of cement, and as we know cement is porous. And so
25 those things, those chemicals that were put in those wells

1 that we thought were evaporating and then they would be

2 hauled away in sludge bins were actually going into the
3 aquifers. And that is how some of this stuff happened.

4 And that's in addition to the things that you said in
5 '79 nothing happened. You weren't there in '79. You don't
6 know. And I guess you probably didn't know all the way up
7 until '84. I was one of the people who went to OSHA and was
8 a whistler-blower on the contamination that was going on for
9 the dumping of the chemicals and the noncontainment.

10 MS. YOUNTS: I hope I am correct in saying this, but I
11 do not believe we have ever been in violation for dumping or
12 for practices that were not accepted and approved at any
13 given time.

14 MR. WILLIAMS: Well, you were sued in court by the
15 State of California and by the federal government for just
16 what you are saying that you have not done, and you
17 negotiated a settlement, which means that there is no
18 conviction but does not mean that there was no crime.

19 MS. YOUNTS: We negotiated a partial consent decree as
20 a Superfund site to address this issue. Absolutely by law
21 requires us to address and resolve this issue, and that is
22 what we are doing and that is what we are committed to do.

23 MR. WILLIAMS: Were you at any time in disagreement as
24 to whose responsibility it was to clean this site, either
25 yours out of your corporate coffers or your insurance

1 company's, like Lloyds of London, Transcendental [verbatim]
2 or any of those?

3 MS. YOUNTS: We have had some insurance recoveries. We

4 have had a tremendous amount of money expended, resources
5 expended out of our corporate coffers. We are also working
6 with the government, which is the entity that we built
7 systems for and that gave us a lot of the materials we used
8 and whose practices we followed in the accordance with the
9 law.

10 MR. WILLIAMS: During that period that I left Aerojet,
11 from 1987 through – all the way up until 1997, I would get
12 periodic visits from your insurers because I had come
13 forward and said enough. And what they told me at every
14 step of the way was that to clean up the Lower American
15 River Valley was going to cost \$300,000,000 in 1987, and
16 they said every five years that amount will double. And we
17 have already exceeded three of those periods. And we would
18 be over a billion dollars in trying to clean this up. And
19 you have taken \$52,000,000 and spread it over 240 years.

20 MS. YOUNTS: Let me make that clarification. That is
21 not correct. \$52,000,000 is the cost for capital for
22 construction. The cost to operate is significant every
23 year, each and every year until it is complete.

24 MR. WILLIAMS: Does this money come from Aerojet or
25 does it come from the Superfund?

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1 MS. YOUNTS: The money comes from GenCorp and Aerojet.
2 We are responsible for payment.

3 MR. WILLIAMS: The Superfund kicks in nothing?

4 MR. BERREY: That is correct. Our oversight costs.

5 Aerojet is billed for our oversight costs.

6 MS. YOUNTS: Not only are we responsible, but please
7 let me repeat one more time, we are committed to completing
8 the process. I can't argue insurance claims with you
9 because I don't have the background, but I can say that we
10 have good technology here, that EPA is working with us on,
11 that all the agencies agree is good technology, that will
12 work to clean, to stop the plume and clean the water to
13 safe, good levels.

14 MR. WILLIAMS: If a plane is constructed incorrectly,
15 it will correct itself by crashing.

16 MS. YOUNTS: Any construction of this project is going
17 to be done by oversight of all the regulatory agencies.

18 MR. WILLIAMS: Our plane is going down.

19 MS. YOUNTS: Everything we do we do in conjunction with
20 the authorities.

21 MR. KERSHAW: My name is Tod Kershaw.

22 You've spoken very smoothly and convincingly, but so do
23 the Firestone spokespeople and so do people who told us
24 tobacco doesn't give us cancer for a decade and they knew
25 better. I am not accusing you of lying, but I don't see

1 any reason to believe you. Just because spokespeople like
2 you have - you have lost your credibility.

3 I want to know how cooperative Aerojet has been with
4 the whole Superfund process, how much they spent on
5 litigation, how hard they fought to take responsibility, and
6 I would like someone from EPA to answer first, please.

7 I don't know if you have any legal restrictions on what
8 you can say at this meeting or not. I really don't know.

9 MR. BERREY: We have been working with Aerojet under a
10 partial consent decree.

11 MR. KERSHAW: I don't know what that means.

12 MR. BERREY: That is a legal document that we have
13 about Aerojet for this remediation and to pay for the
14 remedial investigation.

15 I would say that our effort has been a little more
16 protracted than we would like to see.

17 MR. KERSHAW: Why?

18 MR. BERREY: Why.

19 MR. KERSHAW: Please just speak straight. If she would
20 say we screwed up and we poisoned the water, and now because
21 of legalities and federal government and state government we
22 have to clean it up, I'd believe that.

23 MS. YOUNTS: I said we contaminated -

24 MR. KERSHAW: If you would stop with that, then I would
25 believe you.

1 MS. YOUNTS: We did. We did not do it knowingly.

2 MR. KERSHAW: You also - I just also don't think that
3 you are starting to clean up voluntarily.

4 Could you go ahead and continue.

5 MR. BERREY: Generally, all of our actions and the next
6 thing we are trying to do is modify the consent decree, to
7 allow us to go after operable units, and that is the next

8 phase that we are negotiating with Aerojet on. This is just
9 taking longer than what I would like to happen. That is all
10 I can say.

11 MR. KERSHAW: That is all you can say because of legal
12 restrictions regarding litigation that is going on because
13 Aerojet won't take responsibility for what they've done and
14 are trying to draw it out and save money.

15 Is that why? I am sorry. I thought maybe it was.

16 I don't feel like I'm getting a straight answer.

17 MS. YOUNTS: I don't believe we have any legal issues
18 with the legal regulatory agencies. I don't believe there
19 is any litigation with -

20 MR. KERSHAW: Why is it getting drawn out?

21 MS. YOUNTS: It is a long, complicated process.

22 UNIDENTIFIED AUDIENCE MEMBER: We are adults. We can
23 handle it.

24 MS. YOUNTS: I mean, it is a long, complicated
25 process.

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1 THE COURT REPORTER: One person, please.

2 MS. YOUNTS: We have been working at the process for 20
3 years. You have to do a tremendous amount of investigating
4 to find out where and what the problems are. You have to
5 develop the technology and construct and implement the
6 technology. And you know, we had made a tremendous amount
7 of progress with VOCs and we continue to do so.

8 Perchlorate was just detected and discovered in 1997.
9 We are here. It is the year 2000, and we are here with a

10 remedy and a solution. We believe it is sound.

11 MR. KERSHAW: I have heard all this. I have also heard
12 that EPA would like this to go a lot faster, and I know that
13 I would too. Something is holding this process up. It is
14 very complicated, okay.

15 Let's just go back to my house.

16 MS. YOUNTS: We would like the process to go a lot
17 faster than it has. The part is complicated because we deal
18 with numerous regulatory agencies, not just one. We deal
19 with the government.

20 MR. KERSHAW: Are you in any way trying to stand in the
21 way of this cleanup happening and speeding it up?

22 MS. YOUNTS: We are here in support of this cleanup.
23 We are committed to get it done. Get everything -

24 MR. KERSHAW: I don't believe you when you say that.

25 MS. YOUNTS: I'm sorry you don't believe me. It's

1 obvious there is a lack of trust in this audience and a lack
2 of credibility. I will take fault for the company for that,
3 for not being out here, keeping you informed every step of
4 the way. We made a big mistake over the past ten years, but
5 we don't want to continue to do that. We are here because
6 we want open, candid conversations. We want you to know
7 what is going on, and we want to begin to build trust and
8 have you think that we're credible.

9 MR. KERSHAW: My last question: Will you give us free
10 drinking water for the next 240 years? And not from this

11 area if you please. I mean, that sounds -

12 MS. YOUNTS: The water we drink right now is safe. We
13 have had -

14 UNIDENTIFIED AUDIENCE MEMBER: How many people in here
15 are drinking their water? Will you please raise your hands.

16 MS. YOUNTS: We continue to provide replacement
17 water. That is part of this remedy.

18 MR. LADD: My name is Larry Ladd.

19 In the interest in not delaying that cleanup any
20 further, I will be very brief. Question, Charles. Is a
21 real question of clarification. The four parts per billion
22 perchlorate is for the entire well water, not individual
23 aquifer within that well? It is four parts per billion in
24 the entire sum of the water?

25 MR. BERREY: The four parts per billion is the proposed

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1 remediation standard which applies to the aquifer. When you
2 get into remediation, the point where you will develop data
3 quality objectives and a way of being able to evaluate
4 whether you met that objective or not, and there will be a
5 statistical evaluation when that is done. That won't mean
6 that every place in that aquifer you get the four ppb.
7 There will be a 95 percent confidence level or something
8 like that. Otherwise you just never can get there. There
9 will be something like that will achieve it. It won't be a
10 hundred percent through the aquifer.

11 Does that answer your question?

12 MR. LADD: Yes, it is through the aquifer.

13 MR. BERREY: Yes.

14 MR. LADD: Rosemary, just for corrections. The
15 technology that was used to detect the perchlorate was
16 developed in 1983. We started working for a target. The
17 other point is in terms of the woman's earlier question
18 about delisting, your employer was negotiating to delist
19 this site in 1995. And if the school system had been
20 reorganized that could have been used to include your
21 property in the city of Folsom.

22 MS. YOUNTS: Thank you, Larry. I don't agree with you
23 there. I'll debate that later with you.

24 MR. ROSCOE: My name is Rob Roscoe. I have a simple
25 question. Are the transcripts going to be made available to

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1 the public?

2 MR. BERREY: They become part of the administrative
3 record. They are available at Sacramento University. When
4 we go through the - right now there is an administrative
5 record out there which covers everything up to this point,
6 when we did the remedial investigation. When we get to a
7 ROD, there is requirement to update the administrative
8 record. That becomes part of the ROD. And that document,
9 this document, will be available at Sacramento State as well
10 as the repository in San Francisco, the two repositories.

11 MR. ROSCOE: I am wondering if I can get a copy on the
12 Internet or something before the public comment period ends,
13 so we can see what was said here tonight as we prepare

14 written comments.

15 MR. BERREY: We won't get it for a couple of weeks. I
16 won't get it for a couple of weeks.

17 MR. ROSCOE: Once you get it, can you post it on the
18 Internet?

19 MR. BERREY: I will have to look and see if that is
20 possible. We will try, otherwise it will be at the
21 repository.

22 MR. ROSCOE: If we give you E-mail addresses, can you
23 E-mail it to us? Trying to find some way to get a copy of
24 this record before the close of public comment period.

25 MR. BERREY: All I can promise is once we get it, we

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1 get it to the repository. I am not sure I can get it to you
2 through an Internet type of file.

3 MR. ROSCOE: I think I heard Rosemary say that before
4 1997 you didn't know there was perchlorate in the drinking
5 water or in your water that you were injecting?

6 MS. YOUNTS: Perchlorate was first detected in wells in
7 1997.

8 MR. ROSCOE: How about your injection wells?

9 MR. SWANICK: We knew there was perchlorate in the
10 wells, in the injected wells, since we started injecting in
11 1985. At the time that we were injecting that the belief
12 was that perchlorate was not a health issue. So it was done
13 with the full understanding and recognition by the agencies
14 as well as ourselves.

15 MS. SHARP: I am Renee Sharp, and I have a question

16 slash comment.

17 I do not live in Rancho Cordova although my grandmother
18 does live over in Fair Oaks. I actually work for a national
19 environmental advocacy and research group called the
20 Environmental Working Group. I am here to make a very
21 specific comment slash question, and that is the four part
22 per billion level for perchlorate is not low enough for this
23 reason: Even though it is the low end of the action level
24 that California has set, if you look at how they determine
25 that level, will see that they use as their assumption a 70

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1 milligram adult weight, drinking two liters of water per
2 day. And 40 percent of the infants in this country are
3 bottle fed, and they drink seven times the amount of water
4 relative to their body weight. Not only that, but they also
5 are the most sensitive part of the population. They are the
6 ones most likely to be impacted by description of thyroid
7 hormone levels when their brain is trying to be developed.
8 If you look at that, four parts per billion is not low
9 enough. And also I know that the state is only certified to
10 detect perchlorate to four parts per billion. If you look
11 at the recent literature, they can actually detect
12 perchlorate to less than one part per billion on the order
13 of 0.3 parts per billion.

14 So my question is: How are you going to explain to the
15 children of Rancho Cordova why they were not taken into
16 consideration when you developed your cleanup level?

17 MR. BERREY: What I am doing is using available data
18 that I have today, and I am using the lowest end of that
19 scale. For the last two and a half years or could be as
20 long as three, there have been additional studies in
21 process. And there was an external peer review that was
22 done at the end of '98, basically was determined that more
23 studies were needed because there wasn't information to
24 agree on a reference dose. And those studies are still
25 ongoing, and they are just about at a conclusionary phase.

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1 We are hoping to get something by the June time frame of
2 next year.

3 The process of Superfund is that we work with the best
4 available data that we have. And that when we see something
5 that is not protective of public health, say we had a Record
6 of Decision tomorrow and after that we found that we had
7 something that wasn't protective of public health, we would
8 reopen the Record of Decision to adjust the cleanup level.
9 But I am working from what I know is the best today.

10 Stan, if you have something else to add, please do.

11 DR. SMUCKER: Like Charles indicated, this is a
12 provisional range. We are still testing as I speak. But
13 just for some clarification, the way EPA goes about deriving
14 a reference dose like we did for perchlorate, we basically
15 look at all the studies that are available. Then we
16 identify the adverse effect that occurs at the lowest dose,
17 the lowest exposure level.

18 What this number is based on, there are a number of

19 studies that support a range of 4 to 18. But currently the
20 effect that we found to be most sensitive was the slight
21 effect on the thyroid. Perchlorate is – as we were
22 confirming that perchlorate is pretty specifically an
23 inhibitor of the thyroid function. And the effect that was
24 seen was a slight – perchlorate competes with iodine. To
25 function the thyroid needs to take up iodine. Perchlorate

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1 competes with iodine. If you have enough perchlorate, it
2 will inhibit iodine uptake and it will inhibit the thyroid.
3 The more sensitive effect was that.

4 We were able to see in patients, and they weren't
5 healthy patients, they have a specific thyroid problem. But
6 the minimum dose which we saw that the thyroid was affected
7 was used as – was identified as the most sensitive end
8 point to date, the most sensitive effect. When I say most
9 sensitive effect, the effect occurring at least doses. To
10 that then we consider the database and the uncertainties in
11 the database. We apply certain factors that used to be
12 called safety factors. Some people didn't like that
13 uncertainty. What we applied to get this range today of 4
14 to 18 is a factor from 300, an uncertain factor of 300 to a
15 thousand for the most sensitive effect in adults.

16 You indicated that children who drink formula may have
17 a greater exposure, seven times higher, I agree with that.
18 That is a ballpark. But we also have this extra cushion or
19 buffer area. Now we are still studying perchlorate. So far

20 today I think the evidence is actually very good news in
21 terms of perchlorate. One of the concerns about perchlorate
22 was that at one point it was used for a short time as
23 medicine. There was some problems, especially at the high
24 dose, plastic anemia. But if we were to use that as our end
25 point of concern and the applied safety factors the same

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1 way, okay, now we are not going 300 to a thousand. We are
2 talking more in the range of – well, it would be 50 to a
3 hundred times more. So if we said a hundred times more, it
4 would be a range of 3,000 to 10,000. So 10,000 times higher
5 than the level where we saw the plastic anemia in some
6 patients. So the four parts per billion or 18 parts per
7 billion is based on current data set. It is 3,000 to 10,000
8 times less than that dose at which we saw the plastic anemia
9 in which some patients did from that.

10 We are still studying – but the most sensitive effect
11 that these numbers are based on are not based on plastic
12 anemia or death. They are based on the beginning of the
13 blocking of the iodine uptake into the thyroid.

14 MS. SHARP: I am going to make this real short. I have
15 a Master's degree in biology and my father is a neurologist.
16 I am very aware of the impacts on thyroid hormones. And
17 when you're talking about developing children, you know, we
18 are talking about – the very definition of a hormone is
19 that it works at very, very small levels. And a disruption
20 of any tiny amount could have profound effects.

21 I am saying right now the data that you have, the

22 California Department of Health Services said the action of
23 4 to 18, they based that on a 70 kilogram adult, and that is
24 wrong. You need to base it on developing children. That is
25 all.

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1 DR. SMUCKER: The final approach will definitely
2 consider children. We know there is a special effort being
3 made that you probably are aware of at EPA to look at
4 endocrine disruptors. There is a whole program coming up
5 with new testing methods, sort of like the chemicals. We
6 are developing new testing methods so we can identify maybe
7 possibly more sensitive effects of these chemicals.

8 But we are concerned, too. We are parents and we don't
9 go - I don't go into this field because I have no interest
10 in the environment. I work for EPA, so. It is not deep
11 pockets.

12 MR. BERREY: There are some other states that use
13 infants right now. We are using a lower level than -
14 others have used body weight in calculation with our safety
15 factor. We are studying and we will adjust the cleanup
16 level based on what we get out of the studies.

17 MS. WYANOSKY: I have three comments. Once a plan is
18 chosen, can Aerojet guarantee that the plume will not spread
19 once the remedial thing is in place and they are starting to
20 pump? Can there be some sort of guarantee that the plume
21 will be contained?

22 The next comment is, will Aerojet put in writing that

23 they are responsible for the cleanup for 240 years, that in
24 the generations to come they are responsible in writing and
25 document it and signed by the corporation as it is now,

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1 today?

2 And will Aerojet reimburse the area for the water they
3 contaminated or just give it back and will that be placed in
4 writing in the remediation process? Those are my comments
5 to those issues.

6 MS. YOUNTS: The first question was?

7 MS. WYANOSKY: Can Aerojet guarantee that the plume
8 will not spread? Once it is put in place, not today, once
9 you get going and you have it in place and you're ready to
10 go, will it contain it or is that something like, oh, my
11 God, in five years we better do something else?

12 MR. BERREY: One of the obligations of the agencies on
13 the oversight goal is we have one and a half monitoring
14 wells for every extraction well that we install. So
15 consequently we are going to be monitoring those wells
16 downgradient. And if we find that something that has a
17 health risk, there will be an evaluation of whether we need
18 to put in another extraction well or what has to be done to
19 make an adjustment for that problem. That is part of the
20 containment.

21 MS. WYANOSKY: Is it a year? Six months? Two years?

22 MR. BERREY: Normally if I found there was a problem,
23 and it was in the wintertime, I can't put a well in, an
24 extraction well. So it probably will be a six-month delay

25 or something like that. Until the season -

1 MS. WYANOSKY: So it is not years down the line?

2 MR. BERREY: No. That is part of the remedy, part of
3 the commitment under the remedy when you have the ROD and
4 you have a consent decree, that you would meet these
5 obligations.

6 MS. YOUNTS: We do believe that the technology is
7 sound. I think that the agencies have agreed that the
8 technology is sound and have selected this remedy. It will
9 stop the plume and it will clean and provide safe, clean
10 water. I think we are very comfortable with that.

11 What was the second part of your question?

12 MS. WYANOSKY: The second part was: Is Aerojet willing
13 to put in writing that they are responsible to make sure
14 that it is cleaned up for the next 240 years? Is there
15 generation upon generation, they will say, yeah, we are
16 responsible, yeah, we are still taking care of it?

17 MS. YOUNTS: I assume under the consent agreement it is
18 in writing. Am I right or wrong?

19 MR. BERREY: The consent decree is the legal document
20 that has your obligations specified.

21 MS. WYANOSKY: So it is in writing. Will they put in
22 writing to reimburse the area for the water being
23 contaminated? Will they give it back to us?

24 MS. YOUNTS: We are right now and we will continue to
25 replace lost water.

1 MS. WYANOSKY: Is it free to the city or is Rancho
2 Cordova paying for it?

3 MS. YOUNTS: We are replacing water. To date we have
4 helped support replacement to the tune of \$7,000,000. We
5 continue to replace water and also look at alternative water
6 supplies that are included in this remedy.

7 MS. WYANOSKY: For the area.

8 Thank you.

9 MR. BURKE: Chris Burke.

10 One question. I have a follow-up to several of the
11 questions here. If during the 240 years the cleanup is
12 going to go on or whatever period of time, if Aerojet were
13 to go out of business, what would happen? Who would pay for
14 the cleanup? What would be the legal options of EPA?
15 Happens all the time.

16 MR. BERREY: Basically, we would look at the assets of
17 the Aerojet company. Besides just simply the Sacramento
18 facility, we'd look at GenCorp, and we'd look at the maximum
19 extent to which the umbrella of the corporation would be
20 able to cover the liability.

21 If the liability exceeded that, then that would fall to
22 the Superfund to do the cleanup, in which case it would come
23 out of tax money that comes - now it comes out of the
24 general fund.

25 MS. YOUNTS: Let me say that we don't intend to go out

1 of business. We intend to be here for the long term. We
2 are doing all we can as a new corporation to grow our
3 businesses, and we are committed for the long term. I mean,
4 I can't say this more, that we're committed to this
5 process.

6 MR. BURKE: Yes, I've heard that many times.

7 Thank you.

8 Rosemary, you indicated something about some studies
9 taking place regarding disease-related impacts of the
10 contamination? Did I misunderstand?

11 MS. YOUNTS: I said that there are many, many studies
12 underway by medical and scientific experts around the world
13 to study the effects, what the effects are, if any, of
14 perchlorate. And I said that we support those studies. We
15 are in part helping to fund those studies and participating
16 even in some of those studies.

17 MR. BURKE: Has there been an in-depth epidemiological
18 study done of Aerojet employees, residents in this area,
19 mainly residents in this area who consumed water that was
20 clearly contaminated before we knew it was contaminated? I
21 contacted the State of California, and in their database
22 there was apparently no applicable data in this regard. I
23 am just wondering if I missed something.

24 It strikes me if you want to do what is right, you find
25 out first how much damage you have already done, not just to

1 the groundwater. We've been talking about groundwater and
2 drinking water and all this business. But I do believe
3 that dozens of people have died from this contamination. I
4 say that only because I mentioned and we discussed Aerojet's
5 contamination in an environmental science class that I
6 teach. And several students raise their hands, "Oh, my
7 uncle used to work at Aerojet. He died of a thyroid
8 condition." "My uncle used to work at Aerojet and he died
9 of Leukemia."

10 We know that these are diseases caused directly by
11 these contaminants. Your first responsibility is to find
12 out the extent of these health impacts.

13 MR. SWANICK: Can I answer a little bit of that?

14 MR. BURKE: Please.

15 MR. SWANICK: The Department of Health Services, State
16 of California – the State of California Department of
17 Health Services conducted a series of studies in 1997 and
18 1998 when perchlorate was first found. And they chose the
19 five water districts surrounding Aerojet as target
20 communities and looked at health statistics. And I think
21 were actually four or five people in this room that were
22 part of the public committee that gave input on those.

23 They compared the regions around Aerojet, health
24 statistics to a region that had not had any perchlorate in
25 it, which they chose as the Fair Oaks community, and they

1 chose looking at national statistics and looking at health

2 there. As I recall, there were no statistical differences
3 in any category they looked at. There was one -

4 Larry, help me out here.

5 MR. LADD: In this census plan, the female cancer rate
6 was elevated by 33 percent in the entire period and the
7 deviation between expected and evidence passed the 99
8 percent confidence level.

9 MR. SWANICK: This is the DHS study?

10 MR. LADD: Yes, I was on it. I am afraid I am not
11 totally competent on that. DHS and a copy I had transferred
12 the observed and the expected.

13 MR. SWANICK: I have read the studies and what I recall
14 is that they said no significant difference across the
15 Board. Those are published.

16 UNIDENTIFIED AUDIENCE MEMBER: We can talk later about
17 that.

18 MR. SWANICK: Those are published and available for the
19 public to pick up.

20 MR. BURKE: This was a study done only of perchlorate?

21 MR. SWANICK: It was done of the community, in the
22 community that they think that might have been exposed to
23 perchlorate.

24 MR. BURKE: None of the other contaminants including
25 trichloroethylene which we know is a very common

1 carcinogen.

2 MR. SWANICK: They took the people, all the people in
3 the community; they looked at all the statistics.

4 MR. BURKE: We don't know that Fair Oaks was not
5 exposed to TCE also. You are talking about one chemical,
6 perchlorate. I just want to make sure how extensive your
7 effort has been in ascertaining the extent of the damage you
8 have done to the human health in this region.

9 It seems to me dozens, if not hundreds or thousands, of
10 people who have died from this contamination. And it
11 bothers me when people talk about drinking water because we
12 are talking about human health. We are talking about
13 longevity. We are not talking about 240 years. We are
14 talking about ten years ago these people died, five years
15 ago these people died, and today they're dying.

16 If I'm angry, I apologize. It is awfully frustrating
17 to me to have a highly educated panel and have this company
18 spending tens of millions of dollars trying to come up with
19 solutions and you haven't looked at square one of what the
20 risk is to this community of your actions.

21 I appreciate all your well-intentioned efforts.
22 Really, step back a little bit and take a look at the
23 community and what it is doing to the community, and you
24 haven't done that yet.

25 DR. SMUCKER: We have - the Department of Health

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1 Services has done that and continues to do that.

2 MR. BURKE: I contacted the Department of Health
3 Services and I've discussed this with them. They could not
4 provide me with the data that we are talking about, that I

5 am talking about.

6 MS. DUTREAUX: I would really like to respond to your
7 comments. I have been sitting here quietly trying to keep
8 myself -

9 MR. BURKE: Can I make one more and you can respond to
10 all of them?

11 MS. DUTREAUX: I think you have had a chance a speak to
12 us several times throughout the evening. I would like to
13 have my chance now.

14 MR. BURKE: Please.

15 MS. DUTREAUX: My name is Shelley DuTreaux. I am with
16 the Department of Toxicology at the University of
17 California, Davis, and I would just like to take a few
18 minutes to talk, if I could, and maybe get some questions
19 straight and maybe try and translate some of the acronyms
20 people are using up here to concerns you have out here.

21 First of all, it is very true that we have probably
22 close to 60,000 chemicals in public and commerce use
23 throughout the world today. Of those tested maybe only
24 1,200 to 1,600 do we really have any kind of data on,
25 whether it is acute toxicity in terms of does it burn your

1 eyes and your nose when you breathe it or maybe cancer data?
2 Do we have long-term rat studies showing that tumors show up
3 after feeding these rats and mice something for two or three
4 years?

5 Very few of these chemicals do have reproductive or
6 developmental data, which this person here from the

7 environmental organization responded to that. Basically,
8 what I am saying is that our database about chemicals used
9 in the world today is very small. We just started looking
10 into perchlorate, and one of the first studies we did, we
11 being the scientific toxicology public health community,
12 was to look at reproductive and developmental effects
13 because there was some concern about that. And what came
14 out of that is thyroid effects.

15 But what we have in progress now are long-term cancer
16 studies, and we are not able to say right now that
17 perchlorate doesn't cause cancer because we don't have the
18 data in yet. Those are long-term, three year studies or
19 longer.

20 Stan.

21 DR. SMUCKER: Well, EPA classifies perchlorate as B2
22 carcinogen based on animal studies, specific to the
23 thyroid.

24 MS. DUTREAUX: Right. But I think the concern about
25 where we go from here in terms of animal studies and how

1 does that relate to human studies, I think the concern that
2 this gentleman brought up was where are the human studies,
3 where are the epidemiology. And if we take, for instance,
4 the study the Department of Health Services did, they did
5 what is called a cross-sectional study. You take a
6 cross-section in time. You look at things, who is exposed
7 to the water in the area and what disease they have. It

8 doesn't necessarily mean that one causes the other, but it
9 was a first glance try to do determine what health effects
10 are happening in humans.

11 But to look at Aerojet employees, we would have to,
12 actually have to do a long-term epidemiological study or go
13 back a long time in time and actually follow these people
14 forward and see what kind of cancer they might develop, what
15 kind of reproductive effect they have, what kind of birth
16 defects their children have and link it to the kind of
17 exposure they have at work.

18 These are long-term studies, and we are not going to
19 know the results of these for a while. What we do know is
20 that EPA along with the Department of Health Services has
21 said there are some thyroid effects. And CDC is
22 investigating one cancer in New Mexico where thyroid affects
23 perchlorate exposure has preceded a breast cancer cluster.
24 So there are some concerns about this.

25 But what it comes down to for me is that if we are

1 just testing the monitoring wells we don't get to the fact
2 of what people are really exposed to. What I am asking
3 Region 9, Department of Health Services, Cal EPA and
4 everyone else up there is please start testing at the tap.
5 We need to know what people are actually exposed to. And
6 this is going to get beyond the two liters per day risk
7 assessment idea of what people have consumed in terms of
8 drinking water. But if we are only testing the water at the
9 monitoring wells, we have no idea of actually what people

10 are consuming.

11 MR. BERREY: We also test the drinking water wells.

12 MS. DUTREAUX: That is drinking water; I am asking tap
13 water. There was a study done down in Santa Clara when
14 there was a semiconductor industry contamination of TCE
15 throughout the Santa Clara Valley. And their data were
16 actually flawed because they didn't test - they only tested
17 drinking water and that doesn't necessarily mean what gets
18 to the tap specifically with VOCs. You need to do tap water
19 monitoring. Please, for these people and their well-being
20 test what is in their homes.

21 MR. CARGILE: Could you explain how the drinking water
22 supply is the source for the tap water? How does it get in
23 there?

24 MS. DUTREAUX: Things can dissipate. Chemicals can
25 volatilize, particularly in the home. When we are talking

1 about trichloroethylene, which is a suspected human
2 carcinogen, not a known human carcinogen, Tom McCone, as you
3 probably know, great exposure factors, has worked for
4 Lawrence Livermore National Lab, for Berkeley National Lab,
5 University of California at Berkeley, has said that
6 consuming drinking water with TCE is not the primary
7 concern. Its volatilization and its enclosed areas,
8 including taking showers and having VOCs brought into the
9 body through skin absorption and inhalation. You have to
10 consider the route of exposure to the person being exposed.

11 That is what I am asking about, not drinking water wells,
12 which I think is an easy test to do. If you can make the
13 effort like they do with radon testing, test it in the homes
14 so we can get a much better idea of what people are exposed
15 to.

16 Thank you.

17 MR. HODGE: Are there any other people who are
18 frustrated with not being able to not make their comment?

19 UNIDENTIFIED AUDIENCE MEMBER: I still have a
20 question.

21 MR. HODGE: Actual question?

22 MR. VOETSCH: My name is Greg Voetsch.

23 This is my first meeting. I am glad to see we have so
24 many experts here, and I have a very basic question about
25 health. I haven't heard a whole lot about it until this

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1 last thing here. I guess the fellow back here, he was
2 running some kind of study or involved in some kind of study
3 that I did call about. I made a couple of what I call
4 government calls. Within an hour I went through and told my
5 story maybe eight or nine times, trying to find out about
6 the perchlorate and things like that in the drinking water.
7 And I talked to somebody at Davis, also. And they took my
8 name and they were going to contact me and the reason was
9 because I lost my thyroid to cancer. And we had two types
10 of cancer. My wife has thyroid problems. I might add I've
11 lived in Rancho Cordova for 30 years, just down the street.
12 My oldest daughter has thyroid problems and my second

13 daughter has thyroid problems. I don't believe I was a part
14 of that study because nobody ever contacted me.

15 Now my question that I want to ask is with this group
16 is there anybody that I can go to and find out what is
17 happening? My doctor told us not to drink the water in
18 Rancho Cordova because of our problem, so we are buying
19 bottled water to drink. And it's an expense that I don't
20 like to go through. I would like to know the lady here says
21 we have safe drinking water. So maybe I should just go back
22 to drinking the water here.

23 UNIDENTIFIED AUDIENCE MEMBER: Ask her to prove it to
24 us.

25 MR. VOETSCH: I am not here to - I would just like to

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1 know where I stand.

2 MS. YOUNTS: I say that the water we drink is safe
3 because when perchlorate has been detected in drinking
4 wells, the wells have been shut down. And wells, all of the
5 drinking wells are routinely monitored by the water
6 purveyors. We have also monitored, secondarily we are
7 monitoring those wells as well with the water purveyors to
8 ensure that there are no harmful levels in the drinking
9 water.

10 MR. VOETSCH: I understand that. Are you - all I want
11 to know is are you willing to tell me today or somebody on
12 this panel that it's okay for me to drink the water and I
13 have no more fear of thyroid cancer or thyroid problems. My

14 family is – we have been in and out of hospitals quite a
15 bit with this stuff, and I haven't been able to find anybody
16 to give me an answer on whether or not this is the problem.

17 I see a lot of heads shaking. No answer.

18 UNIDENTIFIED AUDIENCE MEMBER: You need to be part of
19 our group, the Concerned Citizens for Rancho Cordova
20 Water. I think you –

21 UNIDENTIFIED AUDIENCE MEMBER: Don't drink the water.

22 MR. VOETSCH: I am hearing these people talk today. I
23 know you folks are doing the best you can. But I also think
24 that with this young lady and the other one that just got up
25 and talked and said that there is other things to look at.

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1 And I think that maybe you do owe it to us to give some sort
2 of service to let us know where we are healthwise.

3 For me and my family this is a serious problem, and I
4 really come up here and I hear all about the different
5 layers and areas that's been exposed to it. And my home is
6 not on that map and yet doesn't tell me that maybe the well
7 that they closed down was supplying the water for that area.
8 I don't know. So these are a lot of questions that I
9 have. I won't put you on the spot for all of them. I would
10 like to know something about my health.

11 MR. CARGILE: I can't tell you anything about your
12 health. I am not a doctor. I am a geologist. But under
13 law your water purveyors, Arden-Cordova, has to test every
14 well, has to check the water supply that they send to you.
15 That is their responsibility and that data is available to

16 us, and we don't see a problem.

17 MR. VOETSCH: Let me make a comment here. I wasn't
18 going to bring this up. I worked for Arden-Cordova, not as
19 an employee but as a contractor. I heard some stories about
20 when this thing got started the hours that they spent
21 shredding papers and things like that. I mean, I am not in
22 that category where I want to criticize you people or
23 anything.

24 Let's face it, not everybody is up front and truthful
25 about these things and what is happening here. And for me I

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1 have to agree with these people in some cases because for me
2 there is one, two, three, four, five, six, seven, eight,
3 nine, ten people here and none of you can tell me whether or
4 not that this water is safe to drink. Maybe now it is safe,
5 but up until 1997 what were we doing to ourselves. This
6 lady here covered that. What was happening to us.

7 DR. SMUCKER: I believe the Department of Health
8 Services has undertaken a study to try to look at - it's
9 really difficult to reconstruct past exposures if you have
10 no data, no information of what was in your well. It is
11 really hard to say what your past exposure was in
12 perchlorate was or some other chemicals. DHS is, I believe,
13 giving an attempt to try to look at past hospital records
14 and to look at incidents of various cancers, various health
15 effects, to see if there is an anomaly, to see if there is
16 an elevation or increase in the rate of, for example,

17 thyroid cancer. Mostly I believe what and I believe DHS is
18 a part of CalEPA and I can give you some contacts. Actually
19 I believe there is representatives from DHS here who are -

20 UNIDENTIFIED AUDIENCE MEMBER: Mark Hill from DHS had a
21 family emergency.

22 MR. BERREY: We do have a representative from DHS.

23 DR. SMUCKER: They are new to the project, and so I
24 think a little timid with this group. Understandably
25 so. There are some studies trying to look at past exposure.

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1 But I think based on all the information we have today,
2 these levels that were the 18 and the four, they are
3 protective not only of noncancer thyroid effects, but they
4 should be protective of thyroid cancer effects, too. It is
5 the same mechanisms responsible for both cancer or
6 noncancer. At these levels we believe to be protected of
7 cancer. So, we would say, yes, you can drink the water. It
8 should be - you should be okay.

9 MR. VOETSCH: Just one last question. Is this affect,
10 is it cumulative? In other words, we don't know how much I
11 drank up until 1997. If I drank enough, does it continue to
12 build or does it flush out of my system?

13 DR. SMUCKER: A lot of carcinogens that we looked at
14 are cumulative. In the case of perchlorate, it is
15 basically, it is a thyroid promoter. It causes excessive
16 growth of the thyroid if you get too much of it. And that
17 is the mechanism of carcinogenicities as we know it today.
18 It causes a swelling. Whenever you cause rapid growth of

19 cells that is one mechanism of cancer that we believe
20 today.

21 Again, we don't know everything. We study and study
22 and study, and we still don't know everything. We realize
23 there is lots more that we need to learn. But we believe
24 that there is a cumulative effect with perchlorate. We
25 believe a threshold below which there is nowhere it's

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1 basically safe. And we can't say that for all carcinogens.
2 We can't say that for NDMA, for example. Basically, the
3 model we use for NDMA, even a model may cause some risk.
4 Although that risk may be so small that it may be next to
5 zero. About perchlorate, it is a different mechanism.

6 MR. VOETSCH: The fellow in the blue jacket -

7 MR. CARGILE: I want to make one more comment. My
8 office, I don't live in my office. My office is just across
9 Folsom Boulevard over here on Mather Field Road. I've been
10 there for 11 years, and I drink the water every day. That
11 is not a statement that your water is good. I am just -

12 MR. VOETSCH: My son drank the same water I did, and he
13 doesn't have any problems.

14 MR. CARGILE: Every human being is different. That is
15 the only thing I can say.

16 MR. HODGE: Can I just ask: How many people who have
17 turned in comment cards still want to speak or perhaps some
18 of these people have already spoken?

19 UNIDENTIFIED AUDIENCE MEMBER: I am sure you will know

20 when we are done.

21 MR. HODGE: I am just getting the word that we don't
22 have this room as long as I initially thought.

23 UNIDENTIFIED AUDIENCE MEMBER: How long?

24 MR. HODGE: We have it until ten.

25 UNIDENTIFIED AUDIENCE MEMBER: You won't have to ask

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1 the rest of the night if we are done. We probably won't be
2 done at ten.

3 MR. HODGE: It's not just time. I am also worried
4 about people who have been waiting a long time not being
5 able to speak.

6 UNIDENTIFIED AUDIENCE MEMBER: So far I let three
7 people go ahead of me. I am helping you out.

8 MR. HODGE: I appreciate that.

9 Other people who have comment cards in here who haven't
10 spoken yet? I am thinking it might just be - it seems like
11 people are lining up here in the middle. Maybe you should
12 just take a place in line here, rather than trying to use
13 these cards.

14 Does that seem to work for you, too?

15 Let's just do that.

16 MR. DUMONT: My name is Al Dumont.

17 I have two questions. I don't think this is working.

18 MR. HODGE: It's on.

19 MR. DUMONT: How much noise does this 7,000 gallon per
20 minute pump make? I worked at Mather when we used to pump
21 8,000 gallons a minute. You could hear them more than a

22 quarter of a mile away when you started, and they made a
23 howl all the time they were running.

24 They tell me they want to put these in backyards or
25 across the street in our neighbor's yard. That is one

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1 question.

2 The second question is: Despite someone wanting to put
3 it in my yard, what recourse do I have?

4 MR. FEGAN: The question about the 7,000 gpm water
5 flow rate, that will be coming from the series of wells that
6 would probably be similar to construction of a water supply
7 well that is going by the local water district. And
8 depending on where these wells are going to be located,
9 there are ways to use a different type of pump, like
10 submersible pumps, that would minimize any noise impacts to
11 the residential areas.

12 MR. DUMONT: How about if they decide they want to put
13 it in my backyard; what recourse do I have then?

14 MR. FEGAN: I don't think there will be instances
15 where the extraction wells are going to be located in
16 people's yards. I would guess that these wells are going to
17 be located in areas tended to be more commercial or in road
18 right-of-ways where they don't have actual impacts to a
19 residential lot.

20 MR. DUMONT: Thank you.

21 MS. BRASAEMLE: I want to add one thing to that. The
22 wells that are going to be put in according to the plan

23 right now are scheduled to pump between 100, 150 gallons per
24 minute to 500 gallons per minute. There are no individual
25 wells that will pump 7,000 gallons a minute. That is a

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1 collective amount that will be pumped from all of the
2 wells. The individual wells are smaller than that.

3 MS. BROWN: Well, my question is - my name is Kathleen
4 Brown. My question: How come EPA has rejected the
5 alternative for reinjection of the treated water?

6 MR. BERREY: We've gotten Department of Health Services
7 input in the remedial investigations that have been done.
8 They prefer not to have reinjection. One of the reasons is
9 that we felt that we have better control with the extraction
10 system than with reinjection, as I tried to explain
11 earlier.

12 Another concern that the water purveyors had was that
13 there might be some recontamination if the treatment was
14 incomplete, that the aquifer could be recontaminated by
15 reinjection which doesn't occur if it is not reinjected.

16 MS. BROWN: I am concerned about the recontamination of
17 the water sources if you want to reinject the water into and
18 a long-term effect of that.

19 MR. BERREY: The alternates that I talked about, which
20 are 4C and 4B, have no reinjection component.

21 MS. BROWN: Just into the American River.

22 MR. BERREY: The American River, if there was any
23 contamination, the dilution factor would be 150.

24 MS. BROWN: But how do we know that there may not be

25 more chemicals found in 15 years as we did the chemicals

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1 today? Why not just keep it contained, the contaminant,
2 instead of sending them downstream? So out of sight, out of
3 mind.

4 MR. BERREY: When you reinject, that water then has to
5 flow somewhere. So you are going to have this contamination
6 if it wasn't contaminated.

7 MS. BROWN: If it is going to be clean as you claim, it
8 should be able to be used there for something or just to
9 contain it.

10 MS. YOUNTS: We would agree with that. We would agree
11 that the levels we're seeing of water that is treated in the
12 system that we have in place and operating in the plant are
13 clean to the point where they are clean and safe for
14 drinking water purposes. That is a decision that needs to
15 be made by the Department of Health Services.

16 MS. BROWN: If it is declared that this water is clean
17 and safe enough to inject to the public drinking, where we
18 do have kids playing in the river, fish are existing -

19 MS. YOUNTS: It is clean to levels that show no
20 chemicals in the water. It's absolutely cleaner than any
21 water in the river currently or in the canal or anywhere
22 else we draw our water from.

23 MS. BROWN: I understand that. Why are you so opposed
24 to keeping it on-site?

25 MS. YOUNTS: It is a lot of water.

1 MS. BROWN: You want to build all those homes,
2 something. I'm a little bit concerned.

3 MS. YOUNTS: If the water is approved for drinking
4 water purposes and we are able to be permitted, one of the
5 alternatives that we should look at is whether or not we
6 should use that water in a treatment facility to provide it
7 to future development, somewhere, something.

8 MS. BROWN: Also, who is going to monitor this for the
9 first hundred years?

10 MR. BERREY: Aerojet does the monitoring and then there
11 are samples taken and tests done to confirm that the
12 readings are acceptable.

13 MS. BROWN: The tests will be done where?

14 MR. BERREY: The wells are tested downgradient,
15 monitoring wells, and at the individual drinking water
16 wells.

17 MS. BROWN: Will the water be tested at the point when
18 it is going to be distributed into the river?

19 MR. BERREY: Yes. You go to the river, it has to go
20 through an NPDES permit. To get an NPDES permit means you
21 have to have a test to meet standards before it is
22 discharged. Yes, it is tested.

23 MS. BROWN: It is tested how frequently?

24 MR. MACDONALD: The current system at Aerojet that
25 operates actually discharges to the river and are under a

1 permit. It is sampled at least a minimum of weekly. It is
2 sampled that way for about two years. The study area is now
3 discharging to the river and has been in compliance with the
4 permit since it's been issued.

5 MS. BROWN: How much is being discharged to that site?

6 MR. MACDONALD: Anywhere ranging from 2,000, 3,000
7 gallons a minute.

8 UNIDENTIFIED AUDIENCE MEMBER: Do they know when it is
9 going to be tested? Is that scheduled testing?

10 MR. MACDONALD: They are required to test. We split
11 samples as we feel necessary. We do announced and
12 unannounced testing.

13 UNIDENTIFIED AUDIENCE MEMBER: Preposterous to let them
14 regulate themselves. Thanks for letting us know that.

15 MR. MACDONALD: We check their samples with our own
16 samples periodically during each year.

17 UNIDENTIFIED AUDIENCE MEMBER: You check samples they
18 give you?

19 MR. MACDONALD: No, no. We check our own samples.

20 UNIDENTIFIED AUDIENCE MEMBER: That's better, thank
21 you.

22 MR. CARGILE: There are double-checks on every system.

23 MS. YOUNTS: Did you hear that there are double-checks
24 on every system?

25 UNIDENTIFIED AUDIENCE MEMBER: Yeah, yeah, I heard

1 that.

2 Thank you.

3 MR. ECK: My name is Darrel Eck. I am a senior civil
4 engineer with the County of Sacramento. We certainly do
5 plan on commenting on this document within the comment
6 period. But I guess one of the other concerns that we have
7 is seems like there was a couple of days' notice for this
8 particular public hearing. And I think that it would
9 probably - I know it was suggested earlier in the meeting
10 that there could be a possibility of having another. I
11 think that County would strongly support that and would
12 offer any services necessary to help in public notification,
13 arrangement of location and such like that. I would
14 strongly recommend that, and I have a card here if somebody
15 could contact me.

16 MS. YOUNTS: I agree, we ought to keep this, that
17 routine, an ongoing effort.

18 MR. ECK: I appreciate that.

19 Thank you.

20 MS. HEPLER: My name is Janis Hepler.

21 I want to mention that I am particularly pleased given
22 the severity of this overall situation with Aerojet and the
23 perchlorate plume spreading even more than we realize to see
24 Supervisor Don Nottoli here tonight because this has such a
25 massive impact for both the people in this area, and now it

1 is the whole thing is affecting the whole county with water

2 efforts, not related to this particular plume but a
3 different plume affecting obtaining water from other areas
4 of the county.

5 And the reason I want to go ahead and say something
6 tonight was that through the '80s we were very concerned
7 that there was a real strong tendency to divide the Aerojet
8 site up into regions and to look at it regionally, and I can
9 understand the reasons for doing that. But we are also
10 very concerned that, one, there was the focus on the
11 groundwater. There wasn't - there never was publicly the
12 focus on the cleanup.

13 And as someone who has followed this for 22 years now,
14 I tried to get my daughter to come tonight. She was six
15 months old when it came out in the newspaper that it was
16 Aerojet's pollution. At first Aerojet said, "No, that TCE
17 couldn't possibly be ours." But when the perchlorate was
18 discovered, I don't know how, given the detection methods in
19 late '78 they were able to figure it out. But that was in
20 the Sacramento Bee. I called Stan Philipee at the State
21 Water Board at that time. The discovery of perchlorate was
22 very early, but yet we, all of us and many of the same
23 people are still involved over the years, ignored
24 perchlorate all through the '80s and '90s. Very, very sad.
25 And it's - I am a lot more cynical than I was back then,

1 and it is hard to listen to some of the positive spin on
2 things because I heard it and visited Aerojet and saw the
3 systems and now I realize how inadequate a lot of what was

4 going on was.

5 But the point I want to make tonight in attending the
6 hearings on the ongoing RCRA covered operations and the
7 phasing out of the RCRA operations, which is what the
8 gentleman had been referring to early tonight. He had been
9 to a meeting on the phasing out of plans under RCRA
10 Department of Toxic Substance Control, that at that time in
11 the public record I requested that efforts be made to
12 dovetail looking at the cleanup of the RCRA areas and
13 dovetail that with the Superfund cleanup. At that time I
14 was told there wasn't a lot going on. They talked about it.
15 There were some ideas, and I made a point of having it in
16 public record. I wanted to be in the public record tonight.
17 I want to hear more in the future about the degree to which
18 these, everything is not being compartmentalized, the
19 ongoing operations and the phasing out of those operations
20 are being looked at in conjunction with the cleanup.

21 And as you know, the whole site is incredibly complex.
22 We have been talking about one particular area tonight. But
23 it does move out of the area with some of the major
24 operations and contamination.

25 Thanks.

1 MS. KOSTLENIK: I want to say that I feel -

2 Nora Kostlenik with a K. A basic human tenet is that a
3 conflict of interest and that if this little divide here,
4 you guys expect or are surprised by our anger, that you are

5 naive. We are people. Also, we expect that you are going
6 to put a positive spin for the people who pay your bills,
7 they give you money. That would be unreasonable on my part
8 to think that the place that you work for you are, of
9 course, put a positive spin on it.

10 So don't take it personally when I am over here
11 chuckling at you. Of course, you are going to put a spin on
12 it. So, anyway, I think that is where I feel it is
13 reasonable for me to be upset and angry and it is reasonable
14 that you are going to put a positive spin on it. At the
15 same time all through history it doesn't take a rocket
16 scientist to figure out that, pun intended, that you know
17 the example of the tobacco industry. And it is really easy
18 to point our fingers at them. And I know the intentions are
19 good and that - I believe that you didn't know that
20 perchlorate was not harmful. Now that you know it is I need
21 to know how I can get my tap water tested. I don't want to
22 call on these people that are running around. I need to
23 know what kind of bottle I put it in from you EPA people and
24 Shelley. I want to know tonight. I want to know tomorrow
25 how I can get up at 5:00 in the morning and get my act

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1 together and figure out what the hell, excuse my language,
2 is in my tap water. That is my one question.

3 I don't want the runaround. I want to know what is in
4 my tap water, period.

5 And the other thing is I want to know legally how can I
6 get reimbursed for the water that I am buying right now.

7 Because I have heard lots of people say we don't - if you
8 have cancer now it is really hard to tell if it was caused
9 by the water you've been drinking for 30 years.

10 So, I am 34. I drank a lot of that water. I need to
11 know tonight what I need to put in my journal, what legal
12 papers I need to keep track of what the heck is in my water
13 so later I can sue your ass. That is one thing.

14 The other thing is, gentleman, Charles Berrey, you were
15 saying that - I think you said if you knew that you could
16 - about adjusting the base levels for children, which is
17 currently not, and that you - I think you made an allusion
18 to somebody is trying to get that information in there for
19 you guys to change your base level. What needs to be done
20 to get you guys to consider the base level for children?

21 Tap water, number one, how do I test my tap water?
22 You guys are scientists. Impress me, please.

23 MR. MACDONALD: It's not volatile so it is very easy
24 to sample for. You need a clean plastic vial that is
25 certified that there is nothing else in it.

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1 MS. KOSTLENIK: Where do I get that?

2 MR. MACDONALD: You talk to me later. We'll get you
3 one. Grab a sample out of your tap. Seal it up. Make sure
4 you have clean gloves on. You don't contaminate the bottle.
5 Take it to a certified lab that can do an analysis for
6 perchlorate.

7 MS. KOSTLENIK: Thank you. I got an answer. Yeah.

8 MR. MACDONALD: Actually, we have sampled several taps
9 in the Rancho Cordova area. And we have not found
10 perchlorate any different than any time than we found in any
11 of our supply wells.

12 UNIDENTIFIED AUDIENCE MEMBER: How far down, to what
13 minimum level can you test? I heard that machine to test
14 for perchlorate is very rare and hard to come by and
15 Aerojet has it. Does EPA have it?

16 MR. MACDONALD: No. There are labs all over the place
17 that will now do perchlorate. There is a lab within Rancho
18 Cordova that can analyze for perchlorate. Their standard
19 perchlorate reporting level is four parts per billion.

20 UNIDENTIFIED AUDIENCE MEMBER: Does anyone test for one
21 part per billion?

22 MR. MACDONALD: No, that is a reporting level. Their
23 detection level is lower than that. That is two different
24 things. You can see it at a lower level, but they can
25 report it actually what a number is above that. In between

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1 we are not sure what the concentrations is at.

2 MS. KOSTLENIK: If I go to a certified lab, walk
3 through this with me quickly. I go to a certified lab.
4 Legally they found something. Then as I gather data to
5 prove that what is in my water is bad for me. Is that -
6 what else can I do besides have a certified lab give me a
7 piece of paper that says what is or is not in my water so I
8 can make a paper trail here?

9 MR. MACDONALD: Probably be better to talk to me after

10 the meeting about what you need to do. Make sure that you
11 certify the way you took the sample is correct and you
12 didn't make any false positives in your samples.

13 MS. KOSTLENIK: The next question is, according to this
14 process what do I have to do tonight to know that we are
15 going to have a meeting like this again before the public
16 thing is closed and moved on with? What legally has to
17 happen if someone wants to have - I want more of your time.

18 MR. MACDONALD: If there is going to be another
19 meeting, we would announce it. You are on the list now. We
20 make sure that you actually get a notification for that
21 meeting.

22 MS. KOSTLENIK: I'll ask it more directly. What do we
23 the people need to do tonight to make absolutely sure that
24 there is another meeting for sure because we don't feel that
25 all of our answers [verbatim] have time to get full

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1 understanding technically of what is going on here?

2 MR. HODGE: Basically, all you can do to ensure we have
3 another meeting is request it, and we will try to organize
4 it within the comment period. One thing we don't want to do
5 is delay that process any further.

6 MS. KOSTLENIK: That's an opinion. I don't feel that
7 is delaying the process. I want more - I want to hear more
8 from my neighbors and I want to hear it on your time and not
9 mine.

10 MR. NOTTOLI: If I could just ask the audience, it is

11 my understanding you want to delay this thing. We had a
12 request from Department Water Resources on behalf of the
13 County. Would it be helpful to have a letter from my office
14 or on the record this evening -

15 UNIDENTIFIED AUDIENCE MEMBER: Now we are getting
16 somewhere.

17 MR. NOTTOLI: I think that you folks have been very
18 patient and I think the people in the audience have been
19 patient as well. It is a good exchange. I think the people
20 would like some more opportunity to comment and still
21 accommodate even in the time period that has been allowed
22 thus far. If it would help, I will put it officially on the
23 record or if you want it in writing I will put a request in
24 writing.

25 MR. HODGE: State your name.

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1 MR. NOTTOLI: My name is Don Nottoli. I am supervisor
2 for Sacramento County representing Rancho Cordova and this
3 district of Sacramento County.

4 MR. BERREY: You have done what we need to have done.

5 MR. HODGE: The other comment I would like to make,
6 though, is that this forum or another forum like it is not
7 the only way to provide comments on this proposed plan.

8 MS. KOSTLENIK: I have to clarify. The reason I'm
9 making a statement, I am a textbook, political science
10 person who's seen this just a standard procedure you always
11 go through. And anybody who has even passed grade school
12 understands that there is networking that goes on here. We

13 would think you guys a lot of times if we informed – if I
14 could just get the term down from the people here who are
15 from the community who are educated. So to me, it is a
16 favor to you guys if we have these same people and more –
17 get together. There is million different ways we can go
18 through this, and that is part of the problem. There is too
19 many channels. That is why I am specifically wanting this
20 group and more people involved with you guys.

21 MR. HODGE: We definitely appreciate input in whatever
22 form we can.

23 MR. MACDONALD: What I see is we have two meetings. We
24 have the proposed plan and specific project. Most of what
25 we hear are not really related to that specific project.

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1 You need to have meetings on a regular basis to describe to
2 the community what Aerojet is doing, what is going on out
3 there, where all these questions would be answered. So when
4 we come to them with a proposed plan, they know ahead of
5 time what the issues are. I think that is what needs to be
6 done besides another meeting on the proposed plan. It needs
7 another meeting to pick up all the other issues that people
8 are bringing up.

9 MR. WILLIAMS: I would like to comment on, specifically
10 start with a response to this lady who said that there was a
11 process for testing and all of that and things. The reason
12 that there is no data for that is because it has been
13 suppressed by corporations like Aerojet and Aerojet itself.

14 So that any deaths and/or settlements that were done would
15 remain sealed and people not be able to speak about them.

16 I watched colleagues die. I myself was a lucky one. I
17 take medication every day for a seizure disorder from
18 nitrosamines that I had to work with, and I'll take them for
19 the rest of my life, and I can control my seizures. But I
20 have a seizure disorder and that is, you know, from some of
21 the things that I worked with.

22 But what I want to do is to inform the people that the
23 chemicals that they are talking about in this thing is just
24 the tip of the iceberg. What happened is that Aerojet had
25 certain facilities and they had certain permits to work with

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1 certain exotic chemicals. What they did is they created a
2 company called Cordova Chemical Company that was designed
3 that we will make chemicals that other people won't make
4 because they don't have the facilities or they don't have
5 the permits or other people won't make because they are just
6 too massive. And at times out there they were working with
7 stuff like dioxin. They made antimalaria drugs. They
8 produced herbicides, pesticides, all kinds of stuff. None
9 of this stuff is even being addressed at all by all of
10 these people who are speaking specifically to, what, three
11 chemicals out of 60,000 that we manufacture now.

12 And so what I need to do is to have we as the public
13 get enlightened about what was produced out there and how do
14 we test to see what there are. If your children are turning
15 up with seizure disorders, it may be of something that is in

16 the water that is not being tested for.

17 MS. DUTREAUX: Rosemary, does Aerojet have list of
18 MSDSs for the chemicals used on the plant that people can
19 have access to to see the list of MSDSs?

20 MS. YOUNTS: I will have to confirm. I am positive we
21 have MSDSs on all chemicals.

22 MS. DUTREAUX: Those are material safety data sheets
23 that is mandated by OSHA that a company has on-site for
24 every chemical used on-site. Those are part of the public
25 record.

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1 UNIDENTIFIED AUDIENCE MEMBER: They weren't mandated
2 during the time period that was referred to.

3 MS. DUTREAUX: You're right. This only became law as
4 hazard communication in the last few years.

5 MR. CONNOLLY: Good evening. My name is Chris
6 Connolly.

7 I am the Vice President of Environmental Health and
8 Safety for GenCorp, Aerojet's parent company. I am pleased
9 to be here this evening to discuss with you the proposed
10 plan to address environmental remediation issues at
11 GenCorp's property in Sacramento County. GenCorp believes
12 that the EPA's recommended plan of action represents a very
13 thorough and reasonable approach to addressing the
14 environmental remediation issues. GenCorp is eager to move
15 forward quickly and aggressively to put into place the
16 necessary water treatment facilities.

17 The steps outlined in the cleanup plan will stop, and
18 let me repeat that, will stop any further migration of
19 contaminated groundwater, whether from Aerojet or other
20 sources, and in addition clean up the contamination and
21 provide safe, clean water to the capital valley.

22 Over the past 50 years Aerojet has been a leader in the
23 defense industry in this country. Let me assure you that
24 GenCorp is equally committed to applying the same level of
25 determination, focus and resource to groundwater cleanup.

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1 In fact, one of the reasons that GenCorp has moved its
2 corporate headquarters to Sacramento is to increase our
3 focus on environmental stewardship and on our principal
4 Aerojet business. We plan to address our responsibilities
5 head on and with the intent to do what is right for the
6 community. We are committed to finding safe drinking water
7 solutions for those affected by the well closures caused by
8 Aerojet contamination.

9 While we support EPA's preferred remedy, Alternative 4,
10 we prefer the 4B variation of that alternative as opposed to
11 the 4C variation that EPA has endorsed. Both alternatives
12 provide equal protection to human health and the
13 environment. We prefer 4B for a number of reasons. 4B will
14 take less time to get implemented and up and running because
15 it requires less construction than 4C. It is also more cost
16 effective than 4C.

17 Importantly, we feel that 4B is the best approach for
18 the Rancho Cordova community. With less construction, there

19 will be fewer roads torn up, fewer traffic and congestion
20 problems and much less destruction in a community that is
21 actively working to improve and grow.

22 We will provide our technical reason for this
23 alternative during the formal comment period. Let me
24 emphasize that 4B, like 4C, will stop the plume and provide
25 clean water. The bottom line, our goal and our commitment

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1 to you is to stop the plume and provide safe and clean
2 water.

3 This cleanup plan recognizes the leadership role that
4 GenCorp has assumed in the development of new technologies
5 that make the cleanup of perchlorate, NDMA and other
6 contaminants possible. This new technology holds tremendous
7 promise for providing safe and clean water, not to just our
8 neighbors, but to our communities throughout the state and
9 nation.

10 We are here for the long term as Rosemary said. We
11 have, I believe, proven that through our efforts over the
12 past 20 years. We are eager to resolve these issues and
13 move forward, and we intend to be a leader working with our
14 communities to help shape the economic vitality of this
15 region.

16 We realize as has been clearly stated that there's not
17 been sufficient opportunity to address or respond to all of
18 your comments and concerns here tonight. However, we
19 believe this hearing to be a critical part of the process.

20 Therefore, I would like to give you my telephone number and
21 we will leave copies of this in the back: (916) 351-8520.
22 That is 351-8520. And Rosemary's phone number, and you feel
23 free to call Rosemary first, 351-8650, and ask that you
24 please get in touch with us. And we will in turn try to
25 respond to all of your questions.

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1 We thank you for the opportunity to comment.

2 MS. LUNTZFORD: I came in late. I am Sandra Luntzford.

3 I was just wondering is there any plans for
4 groundwater recharge with any of these alternatives? What
5 are we going to do about DFS, has anything been said about
6 their supply for the Lincoln Village Rosemont area that
7 depends on groundwater? There you are. Have you said
8 something?

9 UNIDENTIFIED AUDIENCE MEMBER: Yes. I want a copy of
10 the public record before the public comment closes.

11 MS. LUNTZFORD: I got here late. I'm sorry. What
12 about groundwater recharge, have we talked about this
13 evening?

14 UNIDENTIFIED AUDIENCE MEMBER: Yeah.

15 MS. LUNTZFORD: I'm really sorry. You don't need to
16 reiterate. I'll just go back there and talk to somebody
17 else.

18 MR. CARGILE: The answer is that the preferred
19 alternative doesn't include recharge. That is the quick
20 answer.

21 MS. LUNTZFORD: We are not concerned about groundwater

22 supply, then?

23 MR. CARGILE: There are all sorts of concerns. There
24 is a huge balancing act that is going into this remedy.
25 That includes an interest in that aquifer for water use.

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1 But there is also a health risk issue. Also many, many
2 competing issues here, and this remedy as presented is a
3 balanced, a fine balancing in many respects.

4 So, it is an idea; it is not a final answer. It is
5 only an idea. It is not being -

6 MS. LUNTZFORD: It is not being considered as part of
7 the alternatives, recharge basins?

8 MR. CARGILE: We - all of those things were
9 considered.

10 MS. LUNTZFORD: They are being considered? I didn't
11 notice that in the plan. They are not specifically in the
12 plan?

13 MR. CARGILE: In the big books that are available over
14 at Sac State all of that is discussed. And to some degree,
15 obviously, this can't look exactly like that.

16 MS. LUNTZFORD: Thank you very much.

17 MR. LADD: Now that it is late, I have the opportunity
18 to read stuff into the record. I will try to be very
19 quick. First point would be, I understand that the
20 technology for perchlorate now is about 50 parts per
21 trillion and the method, I can't say, is with the research
22 council. My suggestion is consider what is most important.

23 But the whole question it seems unlikely to me that this
24 weight of perchlorate is due to what was dumped in 1956
25 through 1964, when the hydrology was very different, more

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1 diffuse. My presumption would be that there is a very low
2 level phase of perchlorate further down, perhaps all the way
3 to Watt Avenue where the groundwater converges.

4 Obviously, talk what is most important right now. In
5 the back of your mind you should consider the possibility of
6 using that lower technology as it gets more efficient to
7 finally define where this entire realm of groundwater that
8 originated from Aerojet is from, not because I am worried
9 about one part per billion perchlorate. But the possibility
10 that there might be other substances dumped fairly on in the
11 Aerojet operation. I want to put that in the record.

12 The next question is, knowing that water is one of the
13 greatest - water in California is one of the greatest zero
14 gains there is, and it is probably not within the realm of
15 this operation to decide. When you get that 10,000 gallons
16 per minute, what does that equal in terms of acre-feet and
17 credits on the American River and the ultimate political
18 question of who gets what. Who gets credit - is Aerojet
19 going to get credit for that 10,000, whatever the water
20 allotment is. They are adding to the American River. What
21 is the avenue that is decided. I presume a bunch of lawyers
22 will be deciding. That deciding, is that within the realm?

23 MR. MACDONALD: That is actually going to be decided as
24 you say by lawyers. It is a water rights issue. The water

1 work.

2 MR. LADD: Since the Board has sort of -

3 MR. MACDONALD: State Board.

4 MR. LADD: And then a general feedback from this whole
5 process is involved. When something like this happens and
6 people been exposed, there is a crying need for the
7 government to respond with sending people out into the
8 field, doing at least the superficial kind of health survey,
9 contacting people who have all kinds of questions, and they
10 are looking for authority.

11 When this first broke, basically the source of
12 information was Brokavich. That's been a pretty chaotic
13 process. For example, I just received information a couple
14 weeks ago from a young woman who just got lymphoma and live
15 next door to Arden-Cordova well ten. Now I'm presented with
16 trying to figure out - the woman wants to know if the water
17 had anything to do with her illness. I am a volunteer. I
18 am presented with that challenge. And it seems like with
19 all the money that is spent dealing with this problem, there
20 should be some point of contact, some social worker or
21 health worker who can go out in the field and give straight
22 objective answers to these people who have questions.

23 It is a flaw in the process. For all resources that
24 are being expended it wouldn't take too much to employ one
25 or two people who have a basic confidence in public health

1 matters to address all concerns so you don't get these
2 off-the-wall questions, and then you have the hearings.

3 I am done. Thank you.

4 MR. WALGELL: I am George Walgell. I have one more
5 question. We talked about testing people in the area who
6 drink the water, but has any testing been done of aerospace
7 workers who — the 20,000 aerospace workers who work at
8 Aerojet over a 20-year period and now that they are going
9 off and they are getting older, they are getting ill, has
10 any follow-up been done on these people, aerospace workers?
11 The people belong to the unions that work there and bathed
12 themselves and breathed this stuff, not only drank it.

13 MR. CARGILE: Good question. It is way outside our
14 sphere here.

15 MS. YOUNTS: I am not aware that there have been.

16 MR. BERREY: Not at Aerojet. There has been some other
17 sites.

18 UNIDENTIFIED AUDIENCE MEMBER: There has been a study
19 done at some other site. There has been a study done at a
20 manufacturer of perchlorate, extensive study. They did not
21 find any significant illnesses associated with the
22 manufacturing of ammonium perchlorate in their office.

23

24 MR. WALGELL: I am just wondering if people working
25 building rockets are exposed to a lot more of the raw

1 material rather than a manufacturer might be. I think it
2 would be a valid thing to follow up on.

3 MR. WHITE: I am Rob White.

4 I want to first of all thank all of you for being here.
5 You are only agents of your respective companies or
6 employments, and none of you individually caused this
7 problem. Thank you for being here. It is out of your time,
8 and I appreciate that.

9 I just had a simple question. How is the 7,000 gallons
10 per minute arrived at? Is that flow rate that is coming
11 down the gradient or something else?

12 MS. BRASAEMLE: That was generated. Aerojet produced a
13 feasibility study, which analyzed their alternatives and
14 developed a groundwater model used to study this. They
15 selected a number of wells and they selected the pumping
16 rates for those wells. And we ran the model to ensure that
17 the wells were going to capture the groundwater. And so it
18 actually – probably in one of the alternatives we're
19 looking at closer to 9- or 10,000 gallons per minute and not
20 the 7,000 that came out. The pumping rate is a result of
21 the groundwater modeling, is a result of choosing the wells
22 and the pumping rates, and the sum of the individual pumping
23 rates. And, again, individual wells are not pumping 7,000
24 gpm. It is less than that.

25 MR. WHITE: Thank you.

1 MR. HODGE: I just want to thank you all for sticking
2 around to the end, for providing all of the comments you
3 did. We really appreciate that.

4 We will be getting out more information on subsequent
5 meetings. So if you have not signed up on the sign-in
6 sheet, please do. That will ensure you are on the mailing
7 list for future meetings.

8 UNIDENTIFIED AUDIENCE MEMBER: When will the next
9 meeting be?

10 MR. HODGE: If we are going to do one, we would like to
11 do it within the comment period so we don't delay the
12 process. So it would then be before January 30th.

13 (Public meeting adjourned at 10:20 p.m.)

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STATE OF CALIFORNIA)
) ss.
COUNTY OF SACRAMENTO)

I, ESTHER F. WIATRE, certify that I was the official Court Reporter for the proceedings named herein, and that as such reporter, I reported in verbatim shorthand writing those proceedings;

That I thereafter caused my shorthand writing to be reduced to typewriting, and the pages numbered 3 through 122 herein constitute a complete, true and correct record of the proceedings.

IN WITNESS WHEREOF, I have subscribed this certificate at Sacramento, California, on this 27th day of December 2000.

ESTHER F. WIATRE
CSR NO. 1564